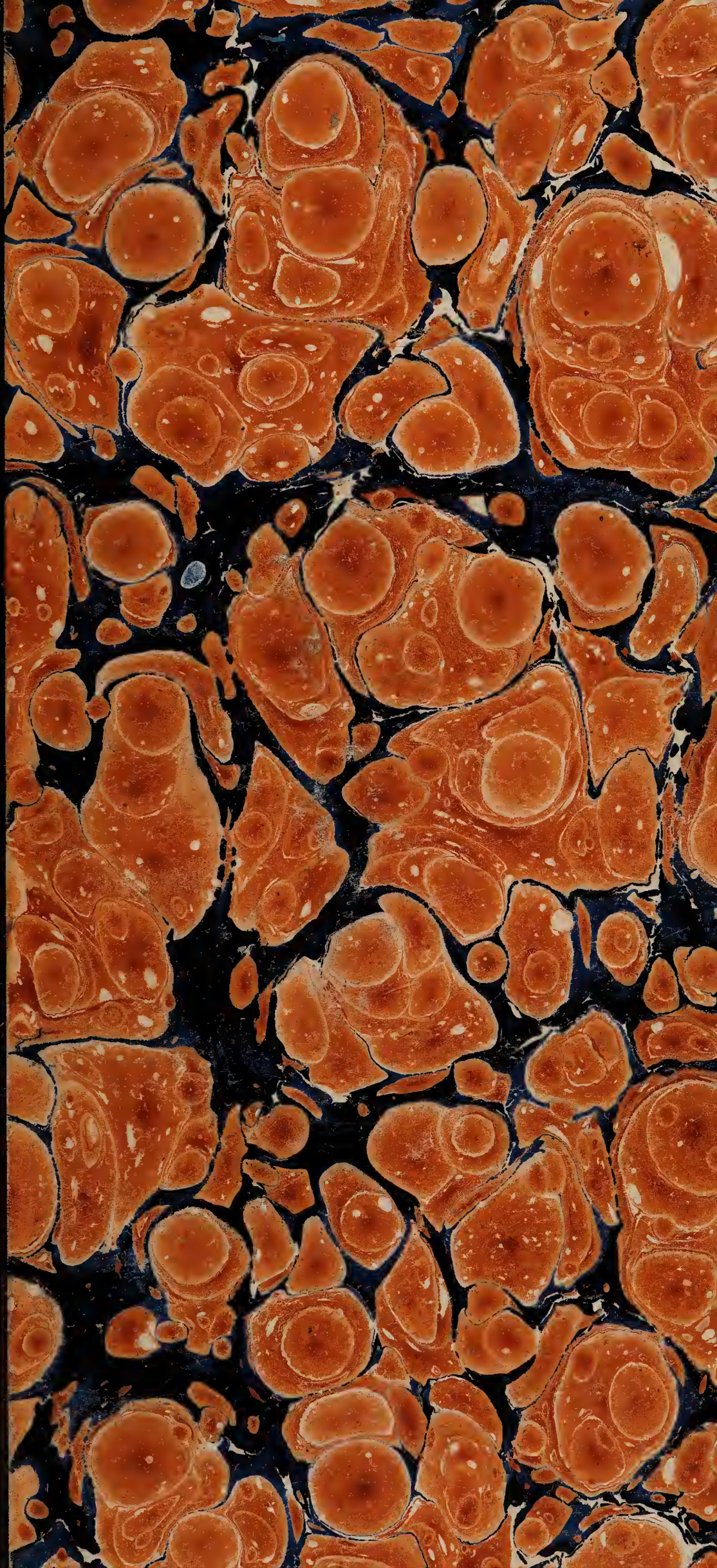


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A General

# TREATISE

OF

# MIDWIFERY.

Faithfully Tranſlated from the

FRENCH of Monſieur *DIONIS*,

Firſt Surgeon to the late DAUPHINESSES,
and Sworn Maſter-Surgeon at *Paris*.

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# THE PREFACE.

THE World perhaps will be surpriz'd to see a new Treatise of Midwifery, after so many that are already publish'd, especially *that* of *Mauriceau*. We own that he was one of the most expert Men-Midwives in his Time; that he carried the Art of Midwifery further than any who went before him; and that he has writ a Book which met with a very favourable Reception, and is universally esteem'd: But since there never was an Author, who either exhausted his Subject, or had an adequate Knowledge of it, it must be granted that it is not impossible to add both to the Theoretical and Practical Part of it.

Besides, it is the Duty of every Man to improve that Art which he professes; and

having the Advantage of the Discoveries made by others, to use his utmost Endeavours to excel them in it. But tho he succeeds, and stands the first in his Profession, yet he has reason to expect that some will come after him again, and make greater Discoveries than he has done; for Arts improve every day, as Men grow in Years and Knowledge.

Are we not oblig'd to the first Pilots for the Discovery of whole Countries, which no body knew any thing of? And was it not *then* thought that no further Discoveries of that nature could be made? till in these last Ages there arose some noble and aspiring *Genius's*, who being sensible of the vast Dimensions of the Terrestrial Globe, ventured to sollicite and engage Monarchs to encourage Navigation; in which they succeeded so well, as to discover a new World; which, in all probability, we must have been utter Strangers to at this day, if they had contented themselves with the Discoveries those first Navigators had made.

'Tis just so with Physick: For had the Professors of it thought that no more was expected from 'em, but to turn over the Volumes of the Antients, and to make themselves Masters of their Opinions and Doctrines, will any one say that it had made the Figure that it now does? Must we not have been unacquainted with a great many considerable and noble Remedies lately found out

against

againſt a vaſt Number of Diſeaſes, moſt part of which were heretofore look'd upon as incurable? Had Surgeons perform'd Operations after the cruel manner of the Antients, and with the ſame Inſtruments they made uſe of, would their Art have been improv'd at the rate it is? Had the Learned World been ſatisfied with the Diſcoveries made by the *Dulaurens's*, the *Riolanus's*, the *Bartholins*, and ſeveral other skilful Anatomiſts, could we have underſtood the Structure of human Body, and the ſeveral Springs and Parts which move and compoſe that admirable Machine, as we do? Had not certain Anatomiſts of the laſt Age, of great Penetration and Learning, diſcover'd and demonſtrated to us a great many Things which the Antients knew nothing of, we muſt have been ignorant of the Circulation of the Blood to this day. And had not the Lacteal Veins, the Thoracick Duct, and a great many other Parts, whoſe Structure and Uſe the Antients underſtood not, been diſcover'd, we ſhould not have known that the Heart is the principal Inſtrument and Cauſe of Sanguification.

Hence we infer, that we ought by no means to pay an implicit Reſpect to the Antients; for tho we are oblig'd to them for chalking out the Way, and giving us ſome ſmall Inſight into Anatomy, yet we muſt carefully enquire into the Truth of what they have advanc'd, ſince they were

ſubject to Errors, and fallible Men, like our ſelves.

*Mauriceau*, who, in the beginning of his Book, gives an Anatomical Deſcription of the Parts of Generation in Women, is entirely of the Opinion of the Antients in the Buſineſs of Man's Production; and maintains that Generation is accompliſh'd by the Mixture of the Virile Seed with *that* of the Female: and is ſo wedded to this Opinion, that tho Diſcoveries were made in his Time, which fully prove that Man, as well as all other Animals, is *ab Ovo*, yet he cou'd never be prevail'd upon to quit it; but, having publiſh'd it in the firſt Edition of his Book, in the Year 1668, took care that it ſhou'd ſtand in all the ſubſequent ones in the very Terms in which he had expreſs'd it at firſt. Wherefore that young Surgeons may not be miſled by him, I ſhall endeavour in the beginning of this Treatiſe to ſet the true Theory and Doctrine of Generation in a clear Light.

*Mauriceau* divides his Treatiſe into three Books: In the Firſt, he ſhews how a Woman with Child ought to be order'd and govern'd; in the Second, how ſhe ought to be aſſiſted in Labour; and in the Third, what Care muſt be taken of her in Childbed. His Method is certainly good; yet by treating of ſeveral Diſeaſes which a Surgeon has nothing to do with, but Phyſicians only, he has ſwell'd his Book to a large Volume.

But

But I am reſolv'd to keep within the Bounds preſcrib'd to the Surgeon; and therefore ſhall diſcourſe of ſuch Diſeaſes *only* as require his Skill and Care, and of ſuch Accidents as befal Women with Child, Women newly deliver'd, and new-born Children.

And ſeeing Midwifery has no occaſion for nice or ſolemn Arguments, I will induſtriouſly ſhun them as much as I can, that I may the better attend to the practical and uſeful part, wherein I purpoſe to be very particular and exact: So that this Book, containing whatever is valuable in *Mauriceau*, and other Authors who have writ on the Subject, will I hope be a ſure Guide to young Surgeons, and others who practiſe Midwifery.

Tho I have given an exact Deſcription of the Parts of Generation in both Sexes in my Anatomy, which has been ſo well receiv'd by the Publick, I have thought fit to repeat it *here*, to ſave the Reader the Expence and Trouble of purchaſing or finding another Book upon the account of that; which it is abſolutely neceſſary for him to have a clear and diſtinct Idea of, in order to underſtand the Myſtery of Generation, which is fully explain'd in this Treatiſe.

There are a great many Cuts which repreſent the different Situations of Infants in the Womb, in the Books of *Guillemeau*, *Mauriceau*, and other Authors, which I take to be of very little uſe, and therefore have not inſerted them here. 'Tis not by the Eye, but

the Touch *only*, that the Artiſt muſt judge of the Poſture and Situation of the Child in the Womb.

I thought it very neceſſary, however, to inſert Figures of the Parts of Generation in both Sexes, becauſe their Structure can't well be underſtood without them. I have likewiſe caus'd to be inſerted the Figures of the Inſtruments that are moſt us'd in Midwifery, and of ſome others, which Surgeons are ſometimes oblig'd to make uſe of.

Tho we neither treat of Diſeaſes, nor of Chirurgical Operations, in the Sixth Book, yet 'tis no leſs curious or uſeful than the five preceding; ſeeing it ſhews the Qualifications which are neceſſary to make a compleat Man-Midwife and Midwife, and contains Reaſons for making uſe of, or giving preference to one or the other. The Obligations which Mothers have to ſuckle their own Children are alſo ſet forth. And laſtly, the Qualifications of a good Nurſe and Childbed-Nurſe are put down; ſo that without this laſt Book, this Treatiſe had been incompleat and defective.

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# BOOK VI.



# BOOK I.

## *Of the Generation of Man.*

IT is abſolutely neceſſary for all who would underſtand how a Child is form'd, to have a thorow knowledge of the Structure of the Parts appropriated to Generation, in both Sexes; for by the Conjunction of 'em a Child is generated. I do not adviſe thoſe who want to be inſtructed in this, to ſtudy the Antients; they were all miſtaken in the buſineſs of Man's Production, and their Opinion, which was handed down from one to another, can't be maintained at this time of day.

*To underſtand how Man is formed, we muſt know the Parts of Generation.*

It is in the Writings of the modern Anatomiſts that we muſt expect to find the Truth: they only have enter'd into the hidden Secrets of Nature; and by laborious Diſſection of the ſeveral Parts of human Body, and due Reflection upon 'em, have diſcover'd its true Mechaniſm; they alone can give us inſight into it: we muſt therefore conſult them, and depend upon their Accounts only.

Book I. It is but reasonable then, or rather absolutely necessary, to understand these Parts in Man and Woman; for did we not first treat of the admirable Springs by which they are mov'd, no part of the following Discourse could be understood. And in truth, were it my Design to explain Generation by *Faculties*, the Reader, after such an Explication, would remain as ignorant as before: for the word *Faculty* is only a Term which the Antients made use of when they treated of natural things; assigning for the cause of the Motion of each Part, a *Faculty*, by which it perform'd, what, by its *Make*, it could not but do. But seeing I purpose to show that Generation, as well as all other Motions of human Body, are the pure Effects of Mechanism; to give light to the things which I am to discourse of, I must begin with an Anatomical Description of the Parts proper to Generation. The first Chapter shall contain those in Men; the second, those proper to Women.

## CHAP. I.

### *A Description of the Parts of Generation in Man.*

MAN is born mortal; it is certain that every Step that he takes, leads to Death: nothing can make him immortal; and all the Relief which Medicine can afford, serves only to give him a short Reprieve, but cannot exempt him from Death. The only Comfort he hath in these fatal Circumstances, is the prospect of living again, in a Child; and this Advantage the

the Parts of Generation procure for him; for 'tis by their means that Nature perpetuates herſelf, while ſhe conſtantly fills up the vacant places of ſuch as die, with others who come into the World. And to provoke Man to beget his Like, ſhe hath beſtowed upon the Parts deſign'd for this Service, ſuch an exquiſite Feeling, and ſenſible Titillation, that he often not minding the Dictates of Reaſon, attends to nothing but the gratifying of his Paſſion; and the Idea of the Pleaſure, as well as the Deſire he has to immortalize himſelf, ſo fire his Imagination, that he very indiſcreetly abandons himſelf to the natural *Impetus* which every Animal has for *Coition*, and the multiplying of its Kind. 

The Parts inſervient to Generation, are common, or proper: The common are found in both Sexes; ſuch as the ſpermatick Veſſels, the Teſticles, and the *Vaſa deferentia:* the proper are either peculiar to Man, as the *Paraſtatæ* or *Epidydimes*, the *Veſiculæ Seminales*, the *Proſtatæ*, and the *Penis*; or to Woman, as the *Matrix*. *The Parts of Generation are many.*

Theſe are all the Parts of Generation which I'm to treat of. I ſhall begin with a Deſcription of the Organs in Man; and ſhall ſet before you, not only thoſe that are proper to him, but alſo thoſe which he has in common with Woman, that we may ſee wherein they differ. I ſhall obſerve the ſame Method in all that I lay before you.

Several Authors have maintain'd, that all theſe Parts deſerve no leſs to be called *Noble*, than the Brain and Heart: and there are even ſome who go farther, and who prefer them to all others; alledging, that the Brain and Heart are of uſe for the preſervation of one Animal only, whereas thoſe are employ'd for the propagation of the Species, in which many Individuals are concern'd.

Book I.

*Four ſpermatick Veſſels.*

The Parts in Man which preſent themſelves firſt, are the four ſpermatick Veſſels, *viz.* two Arteries, and two Veins.

A. A. *Two ſpermatick Arteries.*

The two ſpermatick Arteries ariſe from the anterior part of the Trunk of the *Aorta*, about two Fingers breadth below the *Emulgents*; that on the right ſide about half a Finger's breadth higher than that on the left: they paſs obliquely over the Ureters, and deſcend along the *Pſoas*-Muſcle to the Groin, where a production of the *Peritonæum* inveſts them, and carries them to the Teſticles, while they paſs thro the *Aponeuroſes* of the Muſcles of the Belly.

B. B. *Two ſpermatick Veins.*

The two ſpermatick Veins go from the Teſticles to the *Vena Cava*, to the Trunk of which that on the right ſide goes directly, whereas that on the left goes to the Emulgent: in their way, ſome ſmall branches of Veins from the *Peritonæum* and neighbouring Muſcles join them, and bring them the remainder of the Blood in thoſe Parts, to be carry'd back to the *Vena Cava.*

The Artery and Vein, whereof the one aſcends, and the other deſcends, on each ſide, come near to one another, and receive a Cover from the *Peritonæum.* The ſeveral Branches of the Vein aſcending, meeting there, by their Windings and Inoſculations, form the *Corpus varicoſum*, or *Pyramidale*, whoſe Baſe reaches almoſt to the Teſticles. The Artery contributes nothing towards it, for it deſcends to the Teſticle almoſt in a ſtrait Line, without ſending forth any Branches, except three Fingers breadth above its Inſertion, where it divides into two; the ſmaller is ſpent upon the *Epidydimes*, and the bigger on the Teſticles: and therefore we muſt not with ſome late Authors affirm, that the Vein and Artery by their Twiſtings and Inoſculations, make the *Plexus Pampiniformis.*

C. *Corpus Varicoſum.*

The

Chap. 1.

*The bigneſs of the Spermaticks.*

The ſpermatick Veſſels are larger in Men than Women, and the Arteries in both are ſometimes larger than the Veins: they pierce not the *Peritonæum*, as in Dogs, but are contain'd in its production, together with ſome branches of Nerves which ariſe from a *Plexus* in the *Hypogaſtrium*, and thoſe of the twenty-one pair of the *Spine*, which go directly to the Teſticles, to furniſh them with Animal Spirits, or according to ſome, with Seed. But this can't be; for the Nerves which carry ſo fine a Liquor, cannot receive one ſo thick as the *Semen*. The ſpermatick Veſſels are not only wrapt up in a production of the *Peritonæum*, but they are alſo ty'd together by ſeveral membranous Fibres that are faſtned to this exterior Cover: Here are likewiſe ſome ſmall Lymphatick Veſſels, which go to the Receptacle of the Chyle.

*The left Spermatick Vein goes to the Emulgent.*

It is ask'd, why the left Spermatick is inſerted into the Emulgent, and not into the Trunk of the *Cava*, as the right is? The Anſwer is, That did it croſs the *Aorta*, it would be in danger of burſting by its continual Pulſation; and this Pulſation, and the bigneſs of the Artery, would hinder the return of the Blood by the ſpermatick Vein into the *Cava*, eſpecially ſeeing this Liquor, both ſizy and poor at its ſetting out from the Teſticle, reaches the Emulgent with no ſmall difficulty; even tho Nature has placed at proper diſtances ſeveral Valves, as Steps for it to aſcend by.

*Theſe Veſſels were call'd* Vaſa Præparantia.

The Antients call'd the ſpermatick Veins and Arteries, *Vaſa Præparantia*, becauſe they judg'd that the Seed receiv'd its firſt form in them; and therefore they ſuppos'd theſe Veſſels join'd by ſenſible Holes or Orifices opening into one another, to which they gave the name of *Anaſtomoſes*, by means of which they thought the Ar-

Book I.

terial and Venal Blood were mixt, and that both being detain'd for some time in the *Plexus Pampiniformes*, there receiv'd the first Colour of Seed.

But the Principle which we build upon differs widely from their false Opinion; for it teaches us that the Blood is carry'd directly by the two Arteries to the Testicles, and that if they divide each into two small Branches a little before they are spent upon them, it is for their more convenient entring by several Passages at once, and that the seminal Particles with which the Blood is charged may be the better separated from it: besides, the Doctrine of Circulation teaches us, that the remainder of this Blood is sent back by the spermatick Veins to the *Vena Cava*, and that there are no Anastomoses of Arteries with Veins, either here, or in any other part of human Body: For 'tis evident, that if the Blood passed from the Extremities of the Arteries into those of the Veins, as it would were there any such thing as an Anastomosis, the Parts could neither be nourished, nor the Secretions performed: and in vain should Nature have bestowed on the Arteries such thick Coats to keep in the arterial Blood, if she had join'd those Tubes with Veins whose Coats are so thin; for then the Arteries and Veins would make as it were but one Vessel. To these Reasons, which are all very satisfactory, we may add, that if the Blood that moves with so great force in the Arteries, could immediately pass from them into the Veins, it would forthwith distend, and infallibly burst them.

*There are no Anastomoses of these Vessels.*

Our Senses, as well as our Reason, serve to refute this Doctrine of the Antients; as appears by the following Experiment which I often made: I took two Liquors compos'd of Oil and Wax melted together; to the one I put a little Vermilion, to the

*An Experiment to prove it.*

other a green Tincture, that their Colours might differ; with the help of a Syringe, I readily injected one of them into the ſpermatick Artery, but could not make the other enter into the Vein, becauſe the Valves which open upward, hindered: but ſo ſoon as I found the principal Branch of the Vein near to the Teſticle, I eaſily injected my Liquor, and filled all the Branches with it, ſo that it diſcharg'd itſelf into the *Vena Cava*; and the Liquors, which ought to be injected warm, cooling thicken'd, and made it very eaſy for me to diſſect even the ſmalleſt Branches. I found the red Liquor in all the Branches of the Arteries, and the green in thoſe of the Veins, but did not perceive that any part had paſs'd from the one to the other: whence I may juſtly conclude, that there are no Anaſtomoſes, and that the Blood in the ſpermatick Artery is carry'd to the Teſticle, and that in the Vein back to the Trunk of the *Cava* unmixt.

*Remarks upon this Experiment.*

In making this Experiment, the Veſſels muſt be open'd no further than is neceſſary for introducing the Point of the Syringe; otherwiſe ſome ſmall Branches, by which the Liquor would run out, may be cut: and if you are pleas'd to make this Experiment, you will have no cauſe to grudge the trouble; for whilſt you endeavour to find out Truth, you will have an opportunity to obſerve the Circumvolutions and Inoſculations of the Veins, which is well worth your while.

*The uſe of the Circumvolutions.*

I am convinced, that theſe Circumvolutions of the Veins, ſerve to facilitate the aſcent of the Blood which they carry; and that Nature uſes the ſame contrivance that we do when we go up a Hill, for we aſcend not in a ſtrait Line, but turn ſometimes to the right, and ſometimes to the left, deſcribing the Figure of a Zic-zac, till at laſt we reach the top.

Book I.

*The Uses of the Valves and Spermaticks.*

The Valves in the cavity of the Veins are likewise of great use to carry the Blood upwards, and are placed at proper distances to bear it up, and hinder it from falling back; and by this means it returns to the *Vena Cava*, tho ever so little propell'd by new Blood coming into the spermatick Vein. The Description now given of the spermatick Vessels, shews their true use: the Blood is carry'd by the Arteries to the upper part of each Testicle, from thence it passes thro the whole Substance, which having separated from it the seminal Particles, and those which serve for its Nourishment, the rest is sent back in the Branches of the Veins to the *Cava*.

D. D.

*The Testes.*

The Testicles are so call'd, from the Latin word *Testes*, *Evidences*, for such they are, of the Strength and Vigour of Man's Body; and among the *Romans*, such as wanted them, were not admitted as Witnesses in any Matters. They are also called *Didymes*, that is, *Gemini*, or Twins, because they are ordinarily two in number; and we very rarely meet either with three of 'em, or one only: tho some credible Persons affirm, that all the Males of a certain Illustrious House in *Germany* had three, and shew'd a more than ordinary Passion for the other Sex. I have seen a Person of Quality who had three, and who assur'd me, that most of his Family had as many.

Authors tell us, that in some the Testicles, and even the *Penis* itself, have lain hid in the Abdomen to the 14th Year of their Age; when on occasion of some violent Straining, they started out, and discover'd them to be Boys, and not Girls, as they were reputed before.

*Their Situation.*

The Testicles in Men are seated without the Abdomen, at the root of the *Penis*, and are wrapt up in the *Scrotum*, a Bag compos'd of two Mem-

Membranes call'd common, becauſe they inveſt both the Teſticles after the ſame manner. The reaſon of this Situation, in the opinion of ſome, is, that the Veſſels which carry the Seed being of a greater length, and the Blood of conſequence making a longer ſtay in them, might the more eaſily be chang'd into Seed; but theſe Veſſels contribute no other way to this, than by carrying off the Blood from which the Seed is to be ſeparated, in the Teſticle itſelf. Beſides, had Nature deſigned to have made theſe Veſſels longer, ſhe could have made them riſe from a higher part of the *Aorta:* but it is moſt likely that they are placed outwardly, that their natural Heat might not be encreas'd by that of the Parts of the lower Belly, which would have made Man too wanton; for we ſee that thoſe Animals which have them within the *Abdomen*, are more luſtful than others. Chap. 1.

*Their Figure and Bigneſs.*

The Teſticles are of an oval Figure, and as big as a Pigeon's Egg: 'tis ſuppos'd however, that the right is always a little bigger than the left, that the Seed which is filtrated in it is better concocted, and that being the luſtier, the Males proceed from it.

*The Error of the Antients.*

What gave riſe to this Error, was the receiv'd Opinion, that the Blood being carry'd to the Teſticles by the ſpermatick Veins, the right which ariſes immediately from the Trunk of the *Cava*, convey'd hotter Blood than the left, which ariſes from the *Emulgent*; and that therefore the left Teſticle produc'd the Females. But this Opinion is ridiculous, for the Veins carry no Blood to the Teſticles; and the Arteries which furniſh them with it, ariſe both from the Trunk of the *Aorta:* and we ſee that Perſons from whom either the right or left is taken, beget Male or Female alike.

The

Book I.

*The Testicles have five Membranes.*

The Testicles have five Integuments: Two common, which are the *Scrotum* and *Dartos*; and three proper, the *Erithroeides*, *Elythroeides* or *Vaginalis*, and the *Albuginea*. The first two are called common, because they contain both the Testicles; the other three proper, because each of 'em cover one only.

*The* Scrotum.

The first of the common Membranes is the *Scrotum*, or Purse: It is compos'd of the Scarf-Skin, and the true Skin, which here is finer and thinner than in other parts of the Body: It is soft, full of Wrinkles, and without Fat; it is cover'd with Hair, at fourteen or fifteen Years of Age: It is divided into the right and left Parts by a Line, which begins at the *Anus*, runs along the *Perinæum*, and ends at the Glans. In opening of the *Scrotum*, we must take care that we cut not this Line, because a great many Vessels from different Parts unite in it.

*The* Dartos.

The second common Membrane is called *Dartos*. The Antients took it to be a Continuation of the *Membrana Carnosa:* But now it is known and own'd to be a Cutaneous Muscle, interwoven with a great many fleshy Fibres. By the Action of this Muscle the *Scrotum* is contracted, and grows full of Wrinkles. It has several Arteries and Veins, which come from the *Pudenda:* It not only contains the Testicles, as the *Scrotum* does, but also separates them, and prevents their being bruised by rubbing upon one another.

E. *The* Erithroeides.

The first of the proper Integuments is the *Erithroeides*, that is to say, Red; which Colour it owes to the many fleshy Fibres that run thro it. It is a Production of the *Cremaster* Muscle, that suspends the Testicles, and rises from the *Spine* of the *Os Pubis*.

F. *The* Elythroeides.

The second is the *Elythroeides*. It resembles a Sheath, and therefore is called *Tunica Vaginalis*.

It

It is form'd by the Dilatation of the Production of the *Peritonæum*, in which the Spermatick Veſſels deſcend to the Teſticle, where this Cover dilates to embrace it cloſely. Its Inſide is even and ſmooth; but its Outſide is rough and uneven, which makes it adhere more firmly to the firſt of the proper Membranes. Chap. 1.

G. *The* Albuginea.

The third is the *Tunica Albuginea*; ſo called from its white Colour. 'Tis nervous, ſtrong, and thick: It is the immediate Cover of the Teſticles, and is of the ſame Shape, or rather gives them the Shape which they have. It takes its Origin from the Membranes which contain the Spermatick Veſſels. Its Outſide is ſmooth, and always moiſt: Betwixt that and the internal Surface of the former or laſt Tunick, towards the bottom of the Teſticles, there's found a Space, where Water gathers, which ſometimes produces a *Hydrocele*, or Dropſy, in this Part. But the Inſide of this Integument is uneven, and adheres every where to the Body or Subſtance of the Teſticle.

*The Teſticle laid open.*

This laſt Tunick, or Membrane, is no ſooner cut, but we diſcover the Subſtance of the Teſticle, which is white, ſoft, and looſe, being compos'd of ſeveral ſmall Seminal Veſſels, and many other Capillaries, which are Branches of Arteries, Veins, Nerves, *Lymphatick* Veſſels, and Roots of the *Vaſa Deferentia:* So that this Subſtance is nothing but a vaſt Number of Veſicles, and ſmall Tubes, of admirable Structure, in Lays. It was formerly thought to be a ſort of Marrow, or a Glandulous Subſtance, for want of due Examination.

I. *The* Cremaſters.

Two Muſcles, called *Cremaſters*, ſuſpend the Teſticles. They ariſe from a Ligament fix'd to the *Os Pubis*, where the *Muſculi Tranſverſales*, of which they ſeem to be a Continuation, do end.

They

Book I. They make, as it were, two Coats to the Testicles; which has led some to confound them with the first of the proper Integuments. When these Muscles are stronger than ordinary, the Testicles, by their Contraction, may be moved at pleasure: Thus we see some draw them up, and let them down when they please. The inner Vessels of the Testicles go from the Circumference to the Middle, being rang'd into Bundles in little Cells, made by very fine Membranes, and which are very like to an Orange cut in two.

*The Use of the Testicles.* To understand the Use of the Testicles, 'tis to be observ'd, That the Spermatick Artery runs always betwixt the Circumvolutions of the Vein, that the Blood contain'd in it may be kept warm, rarefy'd, and in motion, by the Heat of the Blood in the Vein, which facilitates its Filtration in the Testicle, where it begins to be precipitated. Hence in Beasts, the Artery makes several Windings, as the Vein does; that whereas it's shorter in them than in Men, the Filtration in the Testicle may be fully provided for.

Such Parts of the Blood as are most easily agitated and subtile, are separated from the rest in the Testicle by its Glandulous Substance, which gives Passage to them only, as having the proper Degree of Volatility and Motion. This part of the Blood so filtrated, is brought to perfection by the Length of the Tubes through which it passes; for 'tis evident, the slower the Blood moves, the Parts have the more Time to fine. It's still more refin'd in the Excretory Duct of the Testicle, which forms the *Epidydimes*, and is made by the reuniting of three or four small Tubes, out of which it rises, and which, passing through the middle of the Testicle, receives by several Streams, what was filtrated in the Bundles of Vessels, and the Cells. The Seed is more and more refin'd


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refin'd by passing through the *Vasa Deferentia*, in which it puts on a whitish Colour, grows frothy, and acquires some Consistence; whereas in the Testicle it was greyish. Finally, it receives its last Degree of Perfection, that is to say, that Energy, and that prolifick Virtue, which makes it apt to ferment, by the Influx of the Animal Spirits, when the Passion is raised; for Love-Frolicks and Sporting not only put the Seed into Motion, but attenuate its Parts, animates them, and makes them frisk up and down in their Reservatories. Chap. I.

This Part of the Seed is laid up for use, when the *Vasa Deferentia* dilate; and that which is filtrated in the *Vesiculæ Seminales* remains in their Cavities, till the Imagination is heated by amorous Thoughts: Then it is so moved, that it forces up, and opens the Edgings which cover and adorn the Excretory Ducts. But the Compression of the fleshy Membranes that cover the Cells, and contract by the Vibration of the Nerves, and the Influx of the Animal Spirits, contribute most towards its Escape.

The *Prostatæ* at the same time discharge a greasy and oleaginous Liquor, which hinders the subtile and volatile Parts of the Seed from evaporating and flying away. This shews us the Artifice which the Perfumers use in preserving their Essences so well, by mixing Oils with them. A little of this unctuous Liquor glides constantly along the *Urethra*, to defend it against the Sharpness of the Urine.

The *Epididymes*, or *Parastatæ*, are little round Bodies, that arise out of one End of the Testicle, and make several Windings upon the upper part of it. They are so called, because they lie upon the Testicles, or *Didymes*. They resemble Silk-Worms, and stick fast to the *Tunicæ Albu-* L. L. *The* Epidydimes.

*ginea*

Book I. *ginea*, which gives them a Membrane that keeps them together.

*Their Use.* Several Uſes are aſſign'd them: But the true one is, to receive the Seed ſeparated in the Teſticles, and throw it into the Trunk of the *Vas Deferens*, to which they are continuous.

M. *The* Vaſa Deferentia. The *Vaſa Deferentia* are ſo called from their Uſe. Some, who thought that the *Semen* in the Act of Generation was ejected by them, call'd them *Ejaculatoria*. But they have no Title to that Name; for they only ſerve to convey the Seed by Drops to the *Veſiculæ Seminales*.

*Their Subſtance and Figure.* Their Subſtance is white, nervous, and ſtrong: They are as big as a Gooſe-Quill. Their Cavity is ſcarce diſcernible where they begin, but more ſo about the middle; and towards their Extremities is moſt conſpicuous. Their Diameters are almoſt every where different.

*Their Situation.* They are ſeated partly in the *Scrotum*, and partly in the *Abdomen*, being a Continuation of the Canal from the end of the *Epidydimes*; and aſcend in the Production of the *Peritonæum*, which contains the Spermatick Veſſels. When they reach the ſuperior part of the *Pudenda*, they bend, and paſs over the Ureters; and coming cloſe to one another, march to the Backſide of the Bladder, and end at the beginning of the *Veſiculæ Seminales*, betwixt the Bladder and the *Rectum*.

N. N. *The* Veſiculæ Seminales. *Du Laurens* call'd the Extremities of the *Vaſa Deferentia Paraſtatæ*; but *Bartholin* beſtows that Name on their beginning. The *Veſiculæ Seminales* are very like to a Cluſter of Grapes, and their Cells to the Cavities of the Kernels of a Pomegranate, the Order and Shape of which they exactly repreſent.

*Their Figure and Uſe.* Some Authors liken them to the Inteſtines of Birds, which are broad in ſome Parts of their Cir-

Circumvolutions, and narrow in others. They are three fingers breadth long, and thicker on one ſide than the other: The broadeſt part exceeds not a Thumb-breadth. Their Cavities are of unequal Magnitudes; and tho' compar'd to a Cluſter of Grapes, yet are not parted by a Membrane, as the Kernels are; for they have Communication one with another. Thoſe on the right ſide are ſeparated from thoſe on the left. They are ſeated between the Bladder and the *Rectum*, near the *Proſtatæ*, and are Conſervatories of the Seed. Chap. 1.

*Two ſmall Tubes, called* Ejaculatory.

Two ſmall Tubes, an Inch long, ariſe from theſe *Veſiculæ*; near to which they are big, but grow ſmaller and ſmaller, as they come nearer the *Urethra*, the Back-ſide of which they open into. They are ſeparated by a Membrane, that juts out a little, and is called *Caput Gallinaginis*, whoſe Eyes are repreſented by the two Orifices of theſe Veſſels, or Tubes, which, as they enter into the *Urethra*, form a *Caruncle*, or Tuft, called *Verumontanum*. This is a ſmall *Valve*, which hinders the Urine, as it paſſes the *Urethra*, from ſliding into the Mouths of theſe two ſmall Ducts. It likewiſe directs the Seed that comes out of them to the *Urethra*, and not to the Bladder.

*A Caution to Surgeons.*

Many Surgeons have taken this *Caruncle* to be a fleſhy Excreſcence, becauſe of the Reſiſtance it makes, when a Probe is introduc'd into the *Urethra*. This muſt not be forgot.

*Their Uſe.*

Theſe Ducts might properly be called *Vaſa Ejaculatoria*, if by their Contraction, and that of the Muſcular Fibres of the *Veſiculæ Seminales*, the Seed were mainly thruſt into the *Urethra* in the Venereal Act. It is alſo probable, that theſe Canals have a moſt exquiſite Senſe, ſeeing the Pleaſure excited in the Time of Ejaculation is chiefly towards the Place of their Situation.

Theſe

Book I.

These Ejaculatory Vessels were not known to the Antients; who taught, That the Seed was carried from the Testicles by two Glands, call'd *Prostatæ*, and from them by several imperceptible Holes into the *Urethra*; or that the Force or *Impetus*, by which the Seed made its way through their Pores, produc'd the Pleasure. But the two Ducts, which I have now describ'd, destroy this Opinion, and point out to us the true Course of the Seminal Liquor.

*A Mistake about them.*

O. O.

The *Prostatæ* are two Glandulous Bodies, whitish, spungy, and harder than other Glands. Some call them little Testicles; because they suppose that they separate Seed more ropy and grey than the other. They truly separate a Liquor, but 'tis not Seed; seeing Eunuchs are furnish'd with 'em, but can't beget Children.

*The* Prostatæ.

They are plac'd hard by one another, at the Root of the *Penis*, under the Neck of the Bladder, in the beginning of the *Urethra*, which passes on betwixt them to the little *Caruncle*, which we nam'd *Verumontanum*. They are compos'd of a great number of Vesicles, full of a ropy Humour, and open into the Cavity of the *Urethra* by several little Ducts which meet there. The Figure of the *Prostatæ* is almost globular; their superior part being broad, their inferior oval: Taken together, they are as big as a Nut.

*Their Orifices.*

The Orifices of these small Ducts, which discharge the ropy Humour of the Glandular Bodies into the *Urethra*, are plac'd around the Hole out of which the Seed is emitted. There are always ten or twelve of 'em, at fewest, in Man. Each of 'em has a little Caruncle which stops it, and hinders a continual Running of this ropy Humour, which always precedes the Emission of Seed. These also make the Urine run over the Orifices, which by this means are not irritated by its Acrimony.

This

This Part is taken to be the Seat of a *Gonorrhæa*; becauſe ſome volatile Salts fixing here, produce Ulcers, which having corroded the Caruncles and the Orifice of the Ducts, from which the ropy Humour that we have ſpoken of flows, a continual Running during Life ſometimes enſues upon it. Chap. I. *The Seat of Gonorrhæas.*

The *Proſtatæ* ſerve to ſeparate from the Blood a viſcid and oleaginous Humour, and to contain it for ſome time in their vaſcular and ſpungy Subſtance, and ſqueeze it by little and little into the *Urethra*, by the ten or twelve Ducts that open into it. The *Urethra* being continually moiſtned and ſoftned by this oleaginous Liquor, neither dries nor decays, but is kept always ſupple and ſmooth. This Humour has two other very good Uſes: The firſt is, That it hinders the *Urethra* from being hurt by the Sharpneſs of the Urine. The ſecond, That it ſerves for a Vehicle to the Seed in the time of Emiſſion; for 'tis certain that if the *Urethra* were not humected by ſome Liquor, ſome Parts of the Seed when emitted would ſtop and adhere to its Sides; ſo that the ſeminal Ferment not arriving at the Matrix, ſo ſtock'd with Spirits, as when it came out of the *Veſiculæ Seminales*, Generation wou'd be fruſtrated. *Their Uſe.*

We can't well diſagree about this laſt Uſe, if we do but conſider that it is in ſtrong Erections chiefly that this Humour is ſqueez'd into the *Urethra*; from which we ſee ſome Drops ordinarily fall at that time, becauſe the *Proſtatæ* are compreſs'd by the Swelling of the *Penis*, which they are contiguous to.

The *Vaſa Deferentia*, call'd by many *Ejaculatoria*, have Arteries and Veins from the Spermaticks, Nerves from the neighbouring Parts, and ſome Lymphaticks from the *Paraſtatæ*; which,

Book I. with those of the *Testes*, empty themselves into the *Receptaculum Chyli*. The Arteries and Veins belonging to the *Vesiculæ Seminales* and *Prostatæ*, are Branches of the *Hypogastricks*, the *Pudenda*, and inferior *Mesaraicks*; and their Nerves come from the *Plexus's* in the Bason of the *Hypogastrium*.

*The* Penis. In vain had Nature prepar'd the *Semen*, which has all the Qualities requisite to produce an *Embryo*, by agitating and impregnating the Egg in the *Ovarium*, if she had not provided a Member to throw it into the Womb, as the *Penis* does.

This Part is call'd the *Virile* Member, because it distinguishes Man from Woman. It has also several other Names, which Modesty permits us not to make mention of.

*Its Situation.* It is seated in the inferior and external part of the *Abdomen*: It is fix'd to the middle and inferior part of the *Os Pubis*: Which Situation is so convenient, that it incommodes no other Part in the Act of Generation.

*Its Substance.* The *Penis* is of a singular Substance or Texture, and is divided into Parts containing and contained. The first are the Scarf-Skin and Skin. The second are the Blood-Vessels, the Muscles, the Glans, the *Corpora Cavernosa*, and the *Urethra*. 'Tis observable that its Skin is finer than in other Parts, which helps to give it that exquisite Sense which it has. It has no Fat; for did it grow fat as other Parts do, it would be too big, unweildy, and soft: Besides, Fat, of its own nature, being without Sense, wou'd take from the Part that nice and exquisite Sense which is requir'd to incline and prompt Man to the Act of Generation.

In some Animals the *Penis* is bony, such as Dogs, Wolves, and Foxes; and in Dogs, which want the *Vesiculæ Seminales*, it is set round with several

several Glands that swell in the time of Coition, so that they can't draw it out again till the Swelling is somewhat abated, that by the Efforts which these Animals make to get clear, the Seed may be squeezed out of their Testicles, and thrown into the Womb of the Bitch. Chap. I.

Q. Q. *The Vessels of the Penis.*

The *Penis* has many Nerves, Arteries, and Veins, more indeed than its size seems to require; but, if we consider its use, not one too many. It has two Nerves which give it a most exquisite Sense, and are Branches of the last pair of the *Medulla Spinalis*; and coming out by the holes of the *Os Sacrum*, go up the middle of the Bifurcation, and running over the back of the *Penis*, are spent upon its Body, the *Glans* and Muscles; its Twigs are bestow'd on the Skin: the *Plexus's* of the Bason do also give some Nerves to it. The *Hypogastricks* and *Pudenda* furnish it with Arteries; the two that come from the *Hypogastricks* are the biggest, and are inserted into the beginning of that place where the *Corpora cavernosa* join; the bigger Branches enter into the *Corpora cavernosa*, after the two most considerable ones have crept up and down the back of the *Penis*, and the smaller ones are distributed all along it. These of the *Pudenda* are only Twigs, and are spent upon its Circumference. It has as many Veins as Arteries, which carry back to the Hypogastrick Veins, and those of the *Pudenda*, the Remainder of the Blood that was brought into the *Penis*, for its Nourishment and Erection. It is observ'd that these Veins uniting below that Point where the nervous Bodies meet, form a Trunk that goes to the *Glans*; and in this Trunk, near to its Division, are placed some Valves, which hinder the Blood in the Branches from falling back into the same Canal.

Book I.

*Its four Muſcles.*

The Yard is mov'd by four Muſcles, *viz.* the two *Erectores*, and two *Ejaculatores*. The *Erectores* riſe from the internal part of the Prominence of the *Os Iſchium*, and are inſerted into the *Corpora cavernoſa*, and diſtribute their Fibres upon their Membranes. The *Ejaculatores* are longer than the *Erectores*, and riſe from the *Sphincter* of the *Anus*, and run along the *Urethra*, and are laterally inſerted into its middle.

R. R. S. S. *The Erectores and Ejaculatores.*

*Their Uſe.*

The Names given to theſe Muſcles point out their Uſe: the former ſerve to erect the *Penis*, as we ſhall by and by ſhew; the latter to emit the Seed: for when their Bellies are ſwell'd and ſhorten'd, they compreſs the *Veſiculæ Seminales*, and determine the Seed into the *Urethra*; out of which it is afterwards thrown with ſome force.

*The Ligament of the* Penis.

The *Penis* is faſten'd to the *Os Pubis* by a ſtrong Ligament which riſes from the Cartilage which joins theſe Bones together, and is inſerted into the ſuperior and middle part of the *Penis*. This Ligament is of great uſe to it, not only in the time of Erection, but alſo when it falls; for it ſuſpends and hinders it from lying upon the *Teſtes*.

*The Parts of the* Penis.

In the *Penis* is remarkable, its Body and Extremities: that part which is not perfectly round is call'd the Body, and is divided into four parts, *viz.* the ſuperior, call'd the back of the *Penis*; the two lateral ones, which make the *Corpora Cavernoſa*; and the inferior, where the *Urethra* paſſes. Its two Extremities are the *Glans*, call'd the Head, and the Root which is faſten'd to the Belly. This Extremity is cover'd with Hair, but chiefly upon the ſuperior part.

T. T. *The Glans.*

The *Glans*, ſo call'd, becauſe it reſembles an Acorn, is more fleſhy than the *Penis* itſelf: it is ſmooth and ſoft, that the Womb may not be hurt

hurt by it, and that it may the more conveniently enter it, ends in a little point. It is cover'd with a very thin and fine Membrane that's an expansion of the *Præputium*, which gives it a most exquisite Sense of Pleasure in the venereal Act. Upon the influx of the Blood and Animal Spirits, as in the time of Erection, it swells, and is of a fine red colour; but when they retire, it turns pale and wrinkly. A Circle, like to a Crown, goes round it; and in the end of it there's a hole for the passage of the Seed and Urine. When Children come into the World without this hole, as sometimes they do, one must be made; or if they have one naturally too strait, it ought to be made wider, that they may urine with more ease, and that the Seed may be more conveniently thrown into the Womb. 

U. *The Prepuce.*

The continuation and extremity of the Skin which covers the *Penis*, is call'd the *Præputium* or Fore-Skin: it is slack and loose, for the better covering or uncovering of the *Glans*. It is tied to the under-side of the *Glans* by a fine and strong Ligament, call'd the *Frœnum:* when this is too short, it draws the *Glans* downward, and ought to be cut, as that under the Tongue, because it hinders the Seed from being thrown directly into the Womb. Sometimes the *Præputium* is so strait, that it cannot go back, and this is call'd a *Phymosis*; and if either on account of this Complaint, or in obedience to a Law, an Incision is made upon the *Præputium*, the Operation is call'd Circumcision.

*Its Use.*

The *Præputium* serves as a Hood and Cover to the *Glans*, and makes its Sense or Feeling in the Act of Generation most exquisite: which made *Riolanus* say, that the Women of the Countries where the Men were circumcis'd, had less Pleasure than others.

Book I.

X.

*The Corpora cavernoſa.*

The *Corpora cavernoſa*, are two in number, one on each ſide: they compoſe the far greater part of the Yard; they are of an oblong Figure, and riſe from the inferior parts of the *Os Pubis* and *Iſchium*, as from a firm and immovable Baſis. They are tied to theſe Bones by two Ligaments, the firſt is faſten'd to the joining of the *Os Pubis*, the ſecond reaches from the one Prominence of the *Os Iſchium* to the other. Theſe Bodies, at their ſetting out, are diſtinct and ſeparate, but come near by degrees, till they join, and make the Figure of the Letter Y. They cover and encompaſs the *Urethra*, and end in the Glans.

*Their Subſtance.*

They are compos'd of two Subſtances; one external, thick, hard and nervous, like the Coats of the Arteries; the other internal, thin and ſpungy, like the Pith of the Elder-tree; but with this difference, that it is of a red Colour, inclining to brown, whereas the Pith of the Elder is white. I have already obſerv'd, that the principal Branches of the hypogaſtrick Arteries entered into theſe Bodies, and reached to their Extremities near the *Glans*, and grew ſmaller and ſmaller on their way, by ſending out a great number of Branches to the right and left, which convey Blood to theſe Parts. Theſe Bodies are ſeparated by a Membrane, not perceptible, near the *Glans*, to which it reacheth not: moreover, being broke in ſeveral places, the Humour contain'd in both, paſſes from the one to the other, and ſwells them both at once.

*The Cauſe of Erection.*

In an Erection of the *Penis* theſe Bodies are fill'd, not with Spirits only, as the Antients thought, but likewiſe with Blood: for by injecting a Liquor into the hypogaſtrick Arteries, I have made it paſs into the *Corpora cavernoſa*; which ſatisfies me, that it is the arterial Blood

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that is pour'd into them, which makes the Erection; and that the Yard falls and grows ſoft, when this Blood is diſcharg'd and carry'd off by the hypogaſtrick Veins. Chap. I.

I have made ſeveral other Experiments, which leave me no room to doubt, that the Influx of the Blood cauſes Erection; for having made Inciſion upon the Yard of a Dog, in that ſtate, as much Blood ran out as would have given it the bigneſs it had when it was erected. Beſide, the ſpongious Subſtance which fills theſe cavernous Bodies, confirms me in this opinion; for were there one Cavity only, the arterial Blood brought into it would be too quickly carried off by the Veins: but this Subſtance detains it for ſome time, and makes the Erection greater. The reddiſh Colour of this Subſtance is likewiſe owing to the Blood that is brought into it, and carried out of it in Erections; for in Children its Colour is almoſt white. I do not deny the influx of the animal Spitits, by the Nerves, into theſe Bodies; but I affirm that the Blood is the principal cauſe of Erection, the animal Spirits being too few to produce ſuch an effect.

*Another Experiment.*

*A Confirmation of theſe Experiments.*

We may therefore conclude, that the Imagination being ſtruck and fired with the great Pleaſure felt in the venereal Act, the animal Spirits are put into a brisker motion than ordinary, and determin'd with force into the Parts of Generation; where mixing with the arterial Blood, a Fermentation of theſe two Liquors enſues, with an Ebullition that greatly dilates all the Cells of the *Corpora cavernoſa*; which being interwoven with fleſhy Fibres, grow ſtiff, and harder and harder, by the Contraction made by the points and heat of theſe Liquors. As to the firſt Cauſe of this Influx of Blood into the little Cells, the general and moſt probable Opinion is, that the Action of

*The Erection by the Blood and animal Spirits.*

the Muſcles of the *Penis* produces this effect; for theſe Muſcles, in the Act of Generation, contract and compreſs the Veins as they come out of the Body of the Yard: ſo that the Blood, furniſh'd by the Arteries to all the Veſſels of the Part, not finding its way back again, is collected by little and little in the Cells of the *Corpora cavernoſa*; which being dilated, hinder its return by the root of the Yard, toward which point theſe Muſcles chiefly contract. Hence the *Penis*, diſtended by a more than ordinary quantity of Blood, is erected, and the ſpongy part of the *Urethra* ſwells at the ſame time, and after the ſame manner that the *Corpora cavernoſa* do.

Y. *The Urethra.* The *Urethra* is a Pipe that reaches from the neck of the Bladder to the end of the Yard, and is continuous to the *Glans*, and ſeated on the underſide and middle of the *Corpora cavernoſa*: it is ſpongious and dilatable; its Diameter from beginning to end, is the ſame.

*Its two Membranes.* It has two Membranes, the external is fleſhy and full of Fibres, which croſs one another; wherefore if the *Urethra* is laid open in any Operation, it heals up of itſelf. The internal is thin, nervous, and is beſmear'd with an oily Humour: The Uſes of which have been already ſhewn.

*Its Figure.* This Pipe reſembles the Letter S, for it deſcends from the Bladder paſſing under the *Os Pubis*, then it aſcends again to accompany the *Penis* to its extremity, where it ends. Surgeons would do well to remember this when they are to introduce their Probe or Catheter into the Bladder, that they may do it more conveniently.

This Part has Veinsand Arteries from the *Hypogaſtrick* and the internal *Hemorrhoidal* Veſſels, and in Women from the Spermaticks alſo. And its

Nerves

Nerves come from the two *Plexus's* of the Baſon of the *Hypogaſtrium.* Chap. 2.

The *Urethra* is the Conduit of both the Seed and Urine; but was not made to carry that ropy Humour which is diſcharg'd into it by the *Proſtatæ*, as has been explain'd; for that Humour ſerves to defend the *Urethra* itſelf againſt the Acrimony of the Urine, as has alſo been ſhown. *Its Uſe.*

Theſe are all the Parts in Man appertaining to Generation. I ſhall proceed to the Deſcription of thoſe of Women, in the following Chapter.

## CHAP. II.

### *Of the Parts of Generation proper to Women.*

IT is not enough that we have treated largely, in the foregoing Chapter, of the Parts in Men appropriated to Generation; for that the Buſineſs of Generation may be ſet in a clear Light, it is neceſſary alſo to explain and deſcribe thoſe Parts in Women which have an equal ſhare in this great Work of Nature. And ſeeing their Structure is as admirable, and their Number as great as thoſe in Men, we proceed to a particular Examination of them. *To underſtand how Woman is formed, we muſt know the Parts of Generation proper to the Sex.*

And that we may obſerve the ſame Method which we follow'd in deſcribing the Parts of Men, I ſhall begin with the ſpermatick Veſſels, which are four, two Arteries, and two Veins, an Artery and Vein, on each ſide, as in Men.

The Arteries riſe from the anterior part of the *Aorta*, at ſome diſtance from one another: their Origin is like that of the ſame Veſſels in Men, but their Inſertion is different; for about the middle A. A. *Two ſpermatick Arteries.*

Book I. middle way, in their progreſs, they are divided into two Branches, one of which, after ſeveral Windings, goes to the Teſticle, and to the *Tuba Fallopiana*, on each ſide; and the other, that is ſmaller, goes to the Womb, where it divides into many Branches, ſome of which go to its Sides, *Tuba*, and Neck, and others to the upper part of its bottom.

B. B. *The ſpermatick Veins.*

Branches of Veins accompany theſe Arteries every where; and aſcending again from the Womb and Teſticle, make two great Veins; that on the right opening into the *Vena Cava*, and the left into the *Emulgent*. The ſpermatick Veſſels in Women differ from thoſe in Men two ways: for the Arteries and Veins in them, from their Origin to their Inſertion, are not ſo long; whether we conſider the Arteries which deſcend from the *Aorta* into the Teſticles, or the Veins which aſcend from the Teſticles to the *Cava*: for the Teſticles in Women, call'd the *Ovaria*, are ſeated in the lower Belly, and thoſe of Men in the *Scrotum*. Secondly, they differ in this, that the ſpermatick Arteries deſcend not to the Teſticles in a ſtrait Line; but winding and turning from ſide to ſide, by theſe Circumvolutions, and by the *Corpus varicoſum*, they both hinder the arterial Blood from being brought into the Teſticle with too great rapidity, and facilitate the aſcent of the venal Blood to the *Cava*.

*Theſe Veſſels differ from thoſe in Men.*

I have already obſerved, that the Antients called theſe Veſſels *Vaſa Præparantia*: I have alſo expoſed the Reaſons they gave for beſtowing this name upon 'em, when I ſpoke of the ſpermatick Veſſels in Men. But their Opinion ſeems yet worſe founded with reſpect to Women: for did the ſpermatick Artery, which is divided into two Branches, one going to the Teſticle, and the other to the Womb, prepare the Blood, and change

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it, in part, into Seed; it would not only follow, that a part only of the Blood thus prepared were carried to the Teſticle, but alſo, that the Womb is nouriſhed by the Seed: for all the Blood ſent to it, when it contains neither *Fœtus* nor *Embryo*, is chiefly ſpent upon its Nouriſhment. I have likewiſe ſhewn, that there are no *Anaſtomoſes* of the ſpermatick Arteries and Veins, and that therefore there's no mixture of the arterial and venal Blood, and that theſe Veſſels have no other Office, than all the other Arteries and Veins of the Body have: that is to ſay, that the Artery, by one of its Branches, carries Blood to the Teſticle for its Nouriſhment, and for the ſeparation of the Seed in the glandulous part of it; and by the other carries it to the Womb for its Nouriſhment; and that the Blood employ'd neither of theſe ways, is ſent back by two Branches of Veins, one from the Teſticle, the other from the Womb; which being join'd, make the *Vena Spermatica*. Chap. 2.

*The Arteries have no Anaſtomoſes with the Veins.*

Women have two Teſticles as well as Men, which by the Moderns are called *Ovaria*. They are ſeated in the Cavity of the *Abdomen*, upon the ſides of the bottom of the Womb, about two fingers breadth from it. C. C.

*The Teſticles.*

Some have endeavour'd to perſuade us, that Nature had placed them there to keep the Seed warm, and make it more elaborate than it could well be, were they ſeated outwardly, as in Man. Others think that the reaſon of this Situation was, that Women might be the more inclin'd to Venery. But not to dive too deep into the Deſigns of *Nature*, we may affirm, that this Situation is more convenient than any other would have been; for if we conſider their dependance upon and relation to the Womb, we muſt be convinc'd that they could not be plac'd far from it.

*Their Situation, and the reaſon of it.*

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The Teſticles in Women differ from thoſe in Men, not only in Situation, but likewiſe in Bigneſs, Shape, Connection, Teguments, and Subſtance.

*Their Bigneſs.* They differ in Magnitude, according to the difference of Years: however, for ordinary, they are no bigger than a Pigeon's Egg.

*Their Figure.* They are of an oval Figure, broad and flat upon the anterior and ſuperior Part; their outſide is uneven, and ſomewhat rugged, therefore not ſo ſmooth as in Men.

*Their Connection.* They are kept in their places by the *Ligamenta lata*, and are faſten'd to the ſides of the Womb by a ſhort and ſtrong Ligament which the Antients improperly called *Vas deferens*, ſeeing it has no Cavity. They are alſo tied, near to the *Ilia*, by the ſpermatick Veſſels, and by a Membrane, call'd the Wing of a Bat; which is nothing but the *Peritonæum*, that reaches from the *Tuba Fallopiana* to the *Teſticles*, and is inſtead of a *Meſentery* to it.

*Their Membrane.* They are covered with the *Peritonæum*, as well as the Veſſels, call'd by the Antients Spermaticks, are. They have alſo a proper Membrane compos'd of fleſhy Fibres.

*Their Subſtance.* The Teſticles in Women differ much in their Subſtance from thoſe of Men; for they are nothing but a heap of Veſicles, taken commonly for Eggs, and therefore now called *Ovaria*. In the She Hedge-Hog and the Sow they are ſeparate one from another, as in Hens. A great number of very fine Blood-Veſſels, branch'd upon the Coats of theſe Veſicles, may be clearly ſeen, if we look narrowly upon them. 'Tis not to be doubted, that there are alſo ſome ſmall Glands, which, tho imperceptible to the naked Eye, do filtrate a milky Liquor; which being more elaborate, and having the finiſhing hand put to it in theſe Veſicles, is

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the Matter of the Egg that contains the Sperm, in which the *Fœtus* lies. Chap. 2.

The *Tubæ Fallopianæ*, ſituated on the right and left ſide of the Womb, are called the Trumpets, becauſe they repreſent the extreme Orifice of a Trumpet. They ariſe from the bottom of the Womb by a ſmall production, and narrow beginning, and dilate and grow broader inſenſibly to their Extremities. Their upper Orifice is always open, and is encompaſs'd with ſmall ragged Membranes, cut like a Fringe. This Part is call'd the *Morſus Diaboli*, or the Cuſhion of the Trumpets. D. *The* Tubæ Fallopianæ.

Theſe *Tubæ* are faſten'd under the *Ovaria* by broad and thin Membranes, which reſemble the Wings of a Bat: Their Inſide is full of Wrinkles. They are not every where of the ſame Bigneſs: They are about four or five fingers breadth long, and about as big as a Gooſe-Quill: Their Veins, Arteries, and Nerves are the ſame with thoſe beſtow'd on the *Ovaria*. They have alſo Lymphaticks, which march directly to the *Receptaculum Chyli*.

Their Subſtance is fleſhy and membranous, that they may dilate and contract as there's occaſion to favour the Deſcent of the *Egg*, which they convey from the *Ovarium* into the Womb. We muſt not then fancy, as the Antients did, that their Uſe is to give vent to the Vapours which ariſe out of the Womb. *Their Subſtance.*

The moſt probable Opinion, concerning the Uſe of the Parts now deſcrib'd, is, That the more volatile or ſpirituous Parts of the Seed go from the Trumpets to the *Ovarium*, to impregnate the Eggs: But theſe animal Spirits cannot enter into the Trumpets without irritating their fleſhy Fibres, which by their Contraction make the *Morſus Diaboli* embrace the *Ovarium* cloſely; ſo that the Egg, which the animal Spirits have agi- *The general Opinion concerning the* Ova.

tated,

tated, is looſen'd inſenſibly, and breaks or rends the Fibres of the Membrane that covers the *Ovarium*, and falls into the Trumpet, and from thence deſcends into the Womb.

The Egg has two Membranes full of Blood-Veſſels, very ſmall at firſt, but which grow larger and larger when the *Ovum* is faſten'd to the Womb, and the *Placenta* begins to grow, and receive the nutritious Juice brought to it by the Veſſels of this Part. Thus all the Parts of the *Fœtus* grow bigger by the Nouriſhment it receives from the *Placenta* by the Navel-String.

Twins come from two Eggs, which drop out of the *Ovarium* at the ſame time. Sometimes the *Ovum* can't get into the Womb, but ſtops in the *Tuba*; where it is nouriſh'd, and the *Fœtus* grows to the third, and often to the fourth or fifth Month, when wanting Nouriſhment, and being pretty big, it makes ſuch Strugglings as cauſe Convulſions in thoſe Parts, and tear the *Tuba* in pieces. But it's plain this can't well be without looſening the ſmall *Placenta* form'd in the *Tuba*, and which till then muſt have been inſtead of the Womb. And the looſening of this Part cauſes ſo great a Flux of Blood, as very often kills both Mother and Child.

*The Womb.* The Part in which the Buſineſs of Generation is chiefly carried on and finiſhed, is called the *Matrix*, becauſe it cheriſhes the *Fœtus*, as a tender Mother does her Infant: It is likewiſe call'd the *Uterus*, from its Figure and Uſe. It is ſituated in the lower part of the *Hypogaſtrium*, betwixt the *Rectum* and the Bladder, in that ſpace which is call'd the *Pelvis*, or Baſon, and which is larger in Women than Men, that the Womb may have room to dilate and ſtretch whilſt a Woman is with Child. The *Os Pubis* is a Fence to it before, the *Os Sacrum* behind, and the *Os Ilium* and *Iſchium* on each ſide.

*Its Situation.*

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The Womb in Girls is as big as a Nut, in Women as a little Gourd; but in big-belly'd Women it is prodigiously big, reaching sometimes above the Navel. We must observe, however, that the Neck of the Womb dilates not as its Bottom does, but is of the same Figure and Dimensions at all times, not only in Women, but also in several other Species of Animals. Its Length cannot be precisely determined; for being membranous, it grows longer or shorter, as there's occasion. Chap. 2. *Its Bigness.*

In Maids it is thin: In Women who have borne Children, 'tis somewhat thicker; and near its internal Orifice it is very thick: And this Thickness makes it capable of dilating, as much as is necessary, to open a Passage for the *Fœtus*. The Womb is remarkably thicker in the time of the *Menstrua*; for the Blood brought thither in abundance at that time entring its Substance, swells it; but it grows thinner again, as these *Purgations* go off. However, in Women not with Child, the ordinary Length of the *Uterus*, from the Bottom to its Neck, is about three fingers breadth and a half, and its Thickness two. It has but one Cavity, which at that time can't contain any thing bigger than a large Bean. *Its Thickness.*

It was the Opinion of the Antients, That the Membranes of the Womb grow thicker, as a Woman with Child grows bigger, and in proportion to the reckoning she has; and they extoll'd the Wisdom of Nature, who, as they thought, had made them so that the Child, whilst in the Womb, thro the abundance of Blood and Spirits furnish'd to that Part, might be in want of nothing necessary for it. But the Moderns have observ'd, That these Membranes, like all others, grow thinner the more they are dilated; *Different Opinions about its Thickness.*

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tho they own they are thicker at the bottom, where the *Placenta* adheres.

*Its Figure.* The Womb is of a round and oblong Figure; for from a broad *Basis*, or its Bottom, it terminates by little and little in a Point towards its internal Orifice, where its Diameter is smallest. Hence it resembles a small Cupping-Glass, or rather a Pear; and if you take in its Neck, it is like to a Viol turn'd upside down. 'Tis not exactly round, but somewhat flat before and behind, which helps to keep it in its place.

*What's meant by the Horns of the Womb.* Upon the superior and lateral Parts of the bottom of the *Uterus*, there are two small Eminences call'd the *Cornua*, or Horns of the Womb, because they resemble those in Calves, when they begin to shoot forth. These Eminences, which answer to two little hollow places above and on the Sides of the *Uterus*, are, very near the Extremities of the *Tubæ*, inserted into the bottom of the Womb.

*The Substance of the Womb.* The *Uterus* is of a membranous and somewhat fleshy Substance, that it may open to receive the *Semen*; and dilate and stretch, as the *Fœtus* grows bigger; and contract in time of Labour, to facilitate its Expulsion, and bring away the After-burden, and return to its natural and usual Dimensions.

*The Membranes of the Womb.* The Womb, as we have already observ'd, has a strong and thick Tegument from the *Peritonæum*, which may easily be divided into two. Its Outside is smooth; its Inside rough, that it may adhere more closely to the Parts which it invests. It covers the whole *Uterus*, and ties it to the *Rectum*, the Bladder, *&c.* The proper Membrane of the Womb, which may well enough pass for its Substance, is compos'd of many different Fibres, so interwoven as to make Cells, not unlike to those of the *Conglobat* Glands, amongst which the famous *Malpighi* reckons the

Womb.

Womb. The Inside of this Part is lined with a nervous Membrane, which makes it sensible, and is the *Basis* of the Muscular Fibres of the *Uterus*, whose concave Surface is even and smooth at the bottom; for if it happens at any time to be wrinkly, 'tis only when Women have their *Menstrua*, because the Orifices of the Vessels which open into its Cavity at that time make little Eminences. The Neck of the Womb is full of Wrinkles at all times, and its nervous Membrane is connected to the inner Coat of the *Vagina*, and that of the *Tubæ Fallopianæ*. Chap. 2.

*How the Womb is fastened.*

The *Matrix* is kept in its place both by the Neck and Bottom: The Neck, which is covered by the *Peritonæum*, is fasten'd to the Bladder, and the *Os Pubis* before, and to the *Rectum* and *Os Sacrum* behind. The Bottom is not tied so fast as the Neck; for it was fit it should be at liberty to move, to dilate and contract, as there's occasion: Nevertheless, that it may not fall more to one side than the other, and that it may not suffer by continual Motion, it has four Ligaments, *viz.* two Superior, and two Inferior.

F. F. *The broad Ligaments*

The Superior, called *Ligamenta Lata* from their Figure, are membranous, and interwoven with several muscular Fibres, and are Productions of the *Peritonæum*, which come from the Loins, and are laterally inserted into the Bottom of the Womb, and into the *Vagina*, to hinder the Bottom from falling upon the Neck, as it does when these Ligaments are too much relax'd. They are compared to the Wings of Bats, because of their Resemblance to 'em. They conduct the Vessels that go to the Womb, and keep the *Testes* and *Tubæ* in their natural Situation.

G. G. *The round Ligaments.*

The Inferior are call'd *Ligamenta Rotunda*, from their Figure, and take their Origin from the Sides of the Bottom of the Womb, near the

Book I. Horns; where they are broad, but grow rounder as they go further from the Womb. They pass thro the Rings that are *Aponeuroses* of the Muscles of the *Abdomen*, and slide obliquely over the *Os Pubis*; and reaching the Groins, are divided in form of a Goose-Foot, into several little Branches; some of which are inserted near the *Clitoris*, others the Lips of the *Vulva*, and others into the Thighs, mixing with those in the Membranes which cover the fore and upper parts of these Organs. Hence come the Pains in the Thighs which Women with Child complain so so much of, and which encrease as the Womb grows bigger, and rises higher. This also makes it so uneasy to Women to be any considerable time on their Knees; for their Legs being folded, they pull the Skin of the Thigh downwards, and consequently the Womb, by means of these Ligaments. The Guts also and *Omentum* sliding through the same Rings, by which these Ligaments pass, make Ruptures that fall into the Groins, and sometimes even into the *Labia*.

*The Structure of the Ligaments.* These Ligaments are compos'd of a double Membrane: Their Inside is furnish'd with all sorts of Vessels. They are long, nervous, round, and pretty big near the Womb; where some Anatomists have observ'd them to be tubular, as well as in their way to the *Os Pubis*, where they grow small and broad, and are inserted as we have said. It is thought they hinder the Womb from rising too high: But this is needless; for the Bottom of the Womb is too closely tied to its Neck, not to prevent that. Besides, had Nature design'd to have kept the Womb in its place by these Ligaments alone, she had been disappointed; for in Women with Child, they suffer it to ascend even to the *Epigastrium*: neither are they sufficient to keep the Womb in

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the ſame place in convulſive Motions, to which it is ſo very ſubject, and which are ſo very ſtrong in that Part, that *Plato* and *Ariſtotle* ſaid, *The Womb was an Animal within an Animal.* In *Hyſterick* Caſes alſo it moves ſometimes upwards and ſometimes downwards, with ſo much force and violence, as ſhews that theſe Ligaments have little power over it; and we ſee that either a grateful or ungrateful Smell is capable to throw it into terrible Convulſions, notwithſtanding all theſe Ligaments can do. From what I have ſaid, it is evident, that the *Antients* underſtood not the true uſe of theſe Ligaments; for I find, that their Action is to draw the Womb downwards, and by their *Elaſticity*, to bring it near to the Yard in the Act of Generation, that by its internal Orifice it may more conveniently receive the Seed emitted into it. If we reflect upon all the Circumſtances of this Act, which I paſs over in ſilence; and if we carefully examine the Structure of theſe Ligaments, we ſhall find ourſelves oblig'd to own, that they have no other uſe, but this; and that were it not for their Aſſiſtance, the Buſineſs of Generation would rarely go well on. Chap. 2.

*The Nerves of the Womb.*

The Womb has Nerves from the *Par Vagum*, and from thoſe which come from the *Os Sacrum*; they are ſpent upon its Neck and Bottom, and make it very ſuſceptible of Pleaſure or Pain, and of Sympathy with all the other Parts of the Body: when 'tis ill or well, all the Body is ſenſible of it; wherefore it is called the Clock, which ſhews the bad or good ſtate of Health in Women.

It has Arteries from the ſpermatick Artery, as has been ſhewn; and from the hypogaſtrick Arteries: the firſt are ſpent upon the Bottom, and the latter, which are bigger, chiefly upon the

Neck and Sides. Thus all the parts of the Womb are furniſh'd and water'd with arterial Blood. The Hemorrhoidal Arteries alſo carry Blood to them, and are afterwards diſtributed upon the inferior part of the *Vagina*.

*Why the Womb has ſo many Arteries.*

So great a number of Blood-Veſſels had not been beſtow'd on the Womb for its Nouriſhment, had they not been deſign'd to carry Blood for the Nouriſhment of the *Fœtus* alſo. The latter part of it is diſcharg'd by a great number of ſmall Branches into the Glands, to which the *Placenta* adheres, that it may be convey'd by the Navel-String to the *Fœtus*; and when a Woman is not with Child, it flows into the bottom of the Womb by ſeveral ſmall Veſſels, which open into it, and is carry'd out of the Body by the *Vagina*. This Flux of Blood, being monthly, is call'd the *Menſtrua*, or *Terms*: and the Veſſels may be plainly ſeen in the Bodies of Women who have been lately *laid*, or have had their *Courſes*.

*Arteries which go to the internal Orifice of the Womb.*

Some Branches of theſe Arteries go to the external or foremoſt Part of the internal Orifice of the Womb, and carry Blood for the Nouriſhment of that Part: when a Woman is big, they ſometimes diſcharge a part of this Blood, eſpecially when there's a greater quantity of it than is requir'd for the Nouriſhment of the *Fœtus*: therefore we need not think it ſtrange that ſome Women have *thoſe* whilſt with Child, and yet go their full time; for then the Terms flow from the Veſſels of the Neck, and not from thoſe of the Bottom of the Womb, which would cauſe an *Abortion*.

*The Veins of the Womb.*

The Womb has as many Veins as Arteries; the two principal are the *Spermatick* and the *Hypogaſtrick*, which every where accompany the Arteries of the ſame name. They are compos'd of

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a great number of Branches, which come from all parts of the Womb, and which carry back the Blood into the Trunk of the *Cava*. These Veins open into one another in several places, which is more observable than in the Arteries; for if you blow into one of 'em, you not only blow up all the rest, but even those of the Neck of the Womb, and of the Testicles also. Chap. 2.

A great many Lymphatick Vessels run upon the outside of the Womb, and empty themselves into the *Receptaculum Chili*, having first joined, and made some pretty big Branches. These three sorts of Vessels, with the Nerves, make a thousand Windings in this Part, that when it is stretch'd, they may be drawn out to a great Length, without violent Motion and Pain. *Its Lymphaticks.*

Having shewn what belongs to the Womb in general, that we may understand it well, we must describe the several Parts which compose it: For having compar'd it to a Vial, it must, like it, have a Bottom, a Neck, and two Orifices; one internal, that is the Bottom, and the other external, which is the Neck. We shall begin with the external Orifice, because it presents itself first to our view.

I shall not recite the various Names given to this Part, but shall only observe, that it is commonly call'd the *Pudendum*. I cannot tell if it has this name because it lies out of sight, or rather because we are asham'd to show it. It is compos'd of several Parts, some of which may be seen outwardly, such as the upper part of the *Pudendum*, the *Mons Veneris*, the *Labia*, the *great Chink*; and others which can't be seen without turning aside the *Labia*, such as the *Nymphæ*, the *Clitoris*, the *Urinary Duct*, or Orifice of the Neck of the Bladder, and the *Caruncul*æ. H. *The exterior Orifice of the Womb.*

Book I. The first of these is call'd by some *French* Authors the *Penil*; it is situated in the anterior part of the *Os Pubis*, and is nothing but the upper part of the *Pudendum*. It is somewhat high or swell'd, being lin'd with Fat; that's instead of a Cushion, that the Bones may not hurt Man in the *Act*.

K. *The Mons Veneris.* The *Mons Veneris* is seated a little below the *Pudendum*: it rises in form of a little Hill above the *Labia*; it is covered, as the *Pudendum* is, with short Hairs, which come out about fourteen Years of Age, and hinder the Parts of Generation, in both Sexes, from hurting one another: they are also of use to keep those Parts warm.

L. L. *The Labia.* Two Parts descend from the *Mons Veneris*, one on the right, the other on the left side; they meet in the *Perinæum*, and are called the *Labia*; they are nothing but the Skin folded back, doubled and lined internally with spungy Flesh and Fat, which make them so thick: they are firmer in Maids than us'd Women; and in those who have brought many Children, hang low, and are flabby: their outside only is covered with Hair, somewhat softer than that on the *Mons Veneris*. Their inferior Part, call'd the *Bridle of the Lips*, is membranous, and relaxes very much by the frequent use of Venery, and in Labour.

*The great Chink.* The space betwixt the two Lips is call'd the *great Chink*, because it is much larger than the Orifice of the Neck of the Womb, which is call'd the little one: it reaches from the *Mons Veneris* to the *Perinæum*.

M. M. *The Nymphæ.* When we open the Thighs, and separate the *Labia*, we discover two Productions, or fleshy Excrescences, which are soft and spungy, and are called the *Nymphæ*, because they direct the Course of the Urine, when Women make water;

ter: they are two, one on each side, and are seated in the upper part, betwixt the *Labia*. Chap. 2.

They are of a triangular Figure, or rather resemble the half of an oval, cut length-ways, like that Membrane which hangs under the Throats of Pullets: they are red, like a Cock's-Comb; their Substance is partly fleshy, partly membranous, being made of the Reduplication of the inner Skin of the *Labia*; they descend from above the *Clitoris*, on each side of the Urinary Duct, till about the middle of the sides of the *Vagina*, where they grow smaller, and disappear: they are about half a finger broad, but not always of the same bigness, for sometimes one is bigger than the other; some Women also have them bigger than others; and in some they grow so very big, that they hang without the *Labia*, and must be cut off. *Their Figure.*

They run towards the superior part of the great Chink, where meeting, they form a little Membrane, which makes the Hood of the *Clitoris*: in Maids, the *Nymphæ* are so firm, that when they make water, the Urine comes out with a whizzing Noise; in used Women, they are soft and flaggy, especially if they have had Children. The principal use of the *Nymphæ* is taken to be, to convey the Urine, as between two Walls, and to hinder the cold Air from entring the Womb: But I believe that their use, besides that of giving Pleasure to the Woman, is rather to stretch, after such a manner, as to make way for the *Labia's* stretching, as much as is necessary for the passage of the *Fœtus* in time of Labour. This is so true, that in opening the dead Bodies of Women soon after their Delivery, I have found the *Nymphæ* almost entirely defaced; for being made of the inner Skin and Reduplication *Their Structure.* *Their Use.*

Book I. cation of the *Labia*, they had been ſo ſtretch'd, that we could ſee them no more.

N. N. *The Clitoris.* On the inſide of the great Chink, above the *Nymphæ*, there's a glandulous Body, oblong, and ſomewhat bigger at its Extremity, call'd the *Clitoris*. It is needleſs to give the various Names of this Part, which is thought to be the principal Seat of Pleaſure in the Act of Generation: 'tis certain that it is of an exquiſite Senſe, and that there are ſome laſcivious Women, who by *Friction* of this Part, receive ſo great Pleaſure, that they care not for Men: wherefore ſome call it the *Contempt* of Men.

*Its Bigneſs.* The *Clitoris* is ordinarily ſo little, that it is not to be ſeen in dead Bodies. It is ſomewhat obſervable in Girls about the Age of fourteen, and grows bigger, as they advance in Years, and are more or leſs amorouſly diſpos'd. It is erected and pretty hard in the heat and height of the Venereal Act, from the Blood and Spirits which are then determin'd into it, as has been ſaid of the *Penis*; for its reſemblance of which, ſome have call'd it, the Woman's Yard. In ſome Women it is ſo big, that it hangs without the *Labia*; in others 'tis as long as a Man's Yard; and they are ſaid, by means of it, to make an unnatural uſe of other Women. Such as had it very big, paſs'd formerly for *Hermaphrodites*, which is frequently the caſe of the Natives of *Egypt*, and other hot Countries, where they are obliged to have it cut off, or ſhortned.

*Its Subſtance.* The Subſtance of the *Clitoris* is the ſame with that of the Yard; its extremity reſembles the *Glans*, only it has no hole, tho ſomething like one appears. It has ſuch a Membrane, as that

O. *Its Glans.* which lines the inſides of the great Chink; and this Skin making an acute Angle in the ſuperior part of the Chink, forms a membranous and wrinkly

wrinkly Production call'd the *Præputium Clitoridis*, or its Hood, becauſe it covers the extremity of it. In its lower part, it has a little *Frœnum*, like that of the *Penis*. It has two Nerves, one on each ſide, which ariſe from the *Os Iſchium*, and before they unite, are call'd the *Crura Clitoridis*, and by their union, make its Body; which nevertheleſs, like the *Penis*, is always divided into two parts, the right and the left, by a membranous *Septum*, or Partition. The Body of the *Clitoris* is only half as long as the *Crura*, whereas that of the *Penis* is four times longer than its *Crura*. The *Crura* of the *Clitoris* are often full of black and thick Blood in the Interſtices of their Fibres.

Chap. 2. P. *Its Prepuce.* Q. Q. *Its Crura.*

The *Clitoris* has four Muſcles, two call'd *Erectores*, two *Ejaculatores*: the firſt ariſe from the Protuberance of the *Os Iſchium*, and lie upon the cavernous Nerves, and are inſerted into the ſides of the *Clitoris*: when they contract, they compreſs the Blood-Veſſels, and make them empty themſelves into the ſpongious part of the *Clitoris*, and erect it. The other two, call'd *Ejaculatores*, are large and flat, and come from the *Sphincter* of the *Anus*; and running along the ſides of the *Labia*, are inſerted into the *Clitoris*, hard by the Orifice of the *Urethra*, which they ſtraiten when they act.

*Its Muſcles.* *The Erectores.* R. R. *The Ejaculatores.*

Altho theſe four Muſcles terminate in the *Clitoris*, they ſerve not only to erect it, but alſo to contract and ſtraiten the Orifice of the *Vagina*; for when they ſwell, they bring the *Labia* together, ſo that in the Act of Generation they embrace the *Penis* more cloſely. It is by means of theſe Muſcles that ſome Women move the *Labia* at pleaſure.

*Their Uſe.*

The *Clitoris* has a pretty conſiderable Nerve, from the Intercoſtals: the Arteries of the *Pudenda* carry Blood to it, and the Veins of the ſame

*Its Veſſels.*

name carry it back to the *Vena Cava*. These Vessels being bigger than so small a Part seems to require, we are inclin'd to think, that more Blood and Spirits being brought by them into it than is necessary for its Nourishment, the Superplus serves to erect and give it agreeable Titillations.

*Its Use.* The *Clitoris* being of an exquisite Sense, seems to be the Seat of that great Pleasure which Women have in the Venereal Act.

T. *The Urethra.* Under the *Clitoris* we find a round Hole, which is the Orifice of the *Urethra*, and is wider and shorter in Women than Men; wherefore they urine with a greater stream, and void with it little Stones, Sand, and Gravel, which very often lie in the bottom of the Bladder in Men. Hence it is, that Women are less subject to the Stone than *they*. This Canal juts out a little in the *Vulva*, and has a Spincter Muscle, that enables *them* to make water, or not, as they please.

*The Prostatæ.* Between the fleshy Fibres of the *Urethra* and the inner Membrane of the *Vagina*, there is a whitish, glandulous Substance, as thick as one's Finger, which runs along and round the neck of the Bladder, and has a great many excretory Ducts, which *de Graef* calls *Lacunæ*, that open underneath the *Urethra*, into the fore and lower part of the *Vulva*, and shed a viscous Humour, that lubricates and tickles *these*, and the adjacent Parts, without mixing with the Seed.

W. W. *The Caruncul Myrtiformes.* When we go lower, and turn aside the *Labia*, we discover an oblong Cavity call'd the *Fossa Navicularis*; in the midst of which, four *Caruncul*, call'd *Myrtiformes*, from their resemblance of Myrtle-Berries, present themselves. They are so situated, that each of them make an Angle, and all together make a Square. They are four small

small membranous and fleshy *Eminencies*, set round the small Chink; the biggest under the Urethra, the middle ones on the Sides, and the smallest before, over against the first: however, their Number and Order frequently vary, in different Subjects. Chap. 2.

These *Caruncles* are reddish, hard, and high in Maids, and are join'd to one another, on the sides, by some small Membranes which tie them together, and make them like to a Rose-Bud, half blown: but in used Women, especially such as have borne Children, they are distinct; for the Membrane being once broke, either in *Copulation* or *Labour*, never reunites. They are compos'd of the membranous and fleshy Wrinkles of the *Vagina*, and make its entry straiter. They serve to grasp the Yard closely in the Act of Generation, which makes the Pleasure in both Sexes the greater; and by being *distactile*, to favour the expulsion of the *Fœtus* in Labour. It has been observ'd, that they are not visible for some days after delivery, because of the great Dilatation of the *Vagina*; and are not to be seen again, till that Part grows straiter, and has recover'd its natural Dimensions.

X. X. *The Vagina.*

The Neck of the Womb is a round and long Canal, situated betwixt its internal and external Orifice: it receives the Sword of the Male, and becomes a Case to it, and therefore is call'd the *Vagina*, that is to say, its Sheath.

The *Vagina* is of a nervous Substance, somewhat spungy, and therefore easily dilates and contracts. It is compos'd of two Membranes, one *external*, which is red and fleshy; the direction of its Fibres is longitudinal; it has a sphincter Muscle, which serves to contract it in the Act of Generation, and dilate it in the time of Delivery. By this Membrane the Womb is fast-

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Book I. ned to the Bladder and *Rectum*. The other *internal*, which is white, nervous, and full of wrinkles and furrows, like the Palate of an Ox, especially in its fore-part, near to the external Orifice: it is about four Inches long, in Women who have had no Children, and an Inch and a half broad; but in those who have born Children, its length and bigness cannot be determin'd. The Fibres of the external Membrane dilate and contract, to adjust its Cavity to the length and bigness of the Yard.

*Its Substance.*

*The Hymen,* Some *Anatomists* affirm, that there is a Membrane which they call the *Hymen*, seated within the *Vagina*, near the *Caruncul*æ: they will have it situated cross-ways, and tell us, it has a little that hole in the middle, for the passage of the *Menstrua*; and that it may be seen, till 'tis broke and torn in pieces by the approaches of Man, or by some other Accident, or vicious Practice; and that this Membrane is the proper sign of Virginity.

*Is not to be found.* Tho I have opened Girls of different Ages, and have diligently searched after this Membrane, I have not met with it in any one; wherefore, I cannot be perswaded, that there is such a Membrane: the Neck of the Womb, in *some*, may have been clos'd up by a Membrane, as it has in others been observ'd to be in the *Caruncles*; but these are singular and extraordinary Cases.

*The true Sign of Virginity.* I do not deny, that there's a certain sign of Virginity, and that the first Embraces give some trouble to both Sexes, or that some drops of Blood are spilt, and that Virgins feel a little Pain in the first Approaches: but I'm not of opinion, that this is owing, as is alledg'd, to the breaking and tearing of this imaginary Membrane; there being more ground to believe, that

all

all this proceeds from the difficulty of introducing the Yard into the *Vagina*, and ſeparating the *Caruncul æ Myrtiformes*, and breaking the Membranes, which tie them one to another, and make the entry very ſtrait; for this is the true Mark of Virginity. All modeſt Maids, however, can't give their new Spouſes thoſe Proofs of Virtue: for there are ſome, whom Nature hath exempted from Pain, by placing theſe *Caruncul æ* ſo, that a Man may enter them with very little trouble, tho *they* have been very chaſte. In a word, we muſt not be too forward in judging; for neither the Straitneſs of the Orifice of the *Vagina*, nor Linen ſtain'd with Blood, are certain Signs of Virginity. Chap. 2.

V. *The Mouth of the Womb.*

The internal Orifice of the Womb, has a hole, like that at the end of the Yard in Man; and is the Orifice of a narrow Pipe that opens for the reception of what is thrown into the Womb, or for the expulſion of what is neceſſary. This Part is very like to the Muzzle of a *Puppy* newly whelp'd, or that of a *Tench*.

*Its Subſtance.*

The Mouth of the Womb is very thick, being compos'd of ſpungy Fleſh, and of wrinkly Membranes, which dilate and ſtretch very much. Tho this Paſſage in Maids is ſo ſtrait, that the ſmalleſt Probe can hardly be introduc'd into it, yet it opens ſufficiently in the time of Labour, for the expulſion of the Child, which muſt be attended with Pain; for it is this Part that chiefly retards Delivery, being open'd by little and little only, by the ſtruggling of the Child. When the Midwives touch this Orifice, they find the Head of the Child girt by it in form of a Crown; wherefore they call it, the *crowning* of the Child: But when the Child has made its way, this Orifice is not obſervable; and the Womb, from the very entry of the Neck to its Bottom, makes but one great

great Cavity; however, it remains in this ſtate a very ſhort while only, for immediately after delivery, theſe Parts contract, like a Purſe, and return to their natural and uſual Dimenſions.

*It is ſhut when a Woman is with Child.*

The Mouth of the Womb dilates for Reception of the Virile *Semen* in the Act of Generation, and immediately thereafter ſhuts again ſo cloſely, that the ſmalleſt Probe cannot be introduc'd into it, and remains ſo till the Woman's reckoning is near up; when a great Quantity of viſcous Humour, that ſweats thro the Pores of the Womb, and ſerves to moiſten and lubricate it for its more eaſy Dilatation in time of Labour, runs out of it.

The Motions of the Internal Orifice, or Mouth of the Womb, are purely *mechanical* or *involuntary*; for did they depend upon the Will, ſome Women would direct it to Motions diametrically oppoſite to thoſe it makes.

Z. Z. *The Bottom of the Womb.*

The only Part that remains to be conſidered, is the Bottom of the Womb, or its Body. It is the principal Part, the biggeſt, it has the higheſt Situation, and in it the greateſt Wonder in *Nature* is wrought.

That Part which reaches from the Mouth of the Womb to its Cavity, is call'd the *Collum minus Uteri*, to diſtinguiſh it from the *Vagina*. 'Tis about an Inch long, and wide enough to receive a Gooſe-Quill. Its Inſide is rough, and wrinkly. This Part, as well as the Mouth, ſhuts as ſoon as the Woman conceives, and continues ſo whilſt ſhe's with Child.

*The Subſtance of the Bottom of the Womb.*

The Bottom of the Womb is of a membranous, fleſhy, and glandulous Subſtance. It is a Finger's breadth in Thickneſs, and therefore very capable of Dilatation. Its Outſide is even and ſmooth, except its Sides, on which are two Eminences call'd Horns, to which the *Ligamenta Rotunda*

*Rotunda* are faſten'd. Its Inſide is full of ſmall Pores and Blood-Veſſels, which once a Month diſcharge or evacuate that Blood which is called the *Menſtrua.* Chap. 3.

The Womb in Women is but one ſingle Cavity; whereas in Beaſts, ſuch as Coneys, Bitches, and ſome others, the two Horns dilate, and make diſtinct Cells, in which their Young-ones lie. But it is not ſo in Women, Mares, *&c.* for in them there's but one Cavity that's large in proportion to the Bigneſs of the *Fœtus*, or of two or more *Fœtus's.* The *Cotyledones* of the Womb in Women are ſmaller than in the Females of other Animals, and are nothing but the glandulous Part, bigger and more uneven in its Surface than ordinary, for the more firm Adheſion of the *Placenta* to it. *Its Cavity is very ſmall.*

The Cavity of the Womb is ſo little, that 'tis hard to conceive how a Child, and ſometimes ſeveral, are form'd in ſo ſtrait a Place; though it muſt be own'd, at the ſame time, that had it been larger, it could not have embrac'd the Egg ſo ſtraitly. And you may obſerve that its Cavity is not exactly round, but that it is a little flat, that when its Sides come together, it may the better propel the Seed through the *Tubæ* into the *Ovaria.*

## CHAP. III.

### *Of Generation.*

GEneration is the Production of an *Animal*, like to that from which it proceeds. Thus Men beget their like, as all other *Animals* do, each

each in their Kind. For the Author of *Nature* having made none of thoſe Animals with which the World is ſtock'd immortal, deſigns they ſhould propagate their Kinds till he is pleas'd to deſtroy the World, which is the Work of his own Hands.

As it is the Will of the Creator that every Animal ſhould multiply, by begetting its like; ſo he has provided them with proper Organs for this great Purpoſe, and has beſtow'd on theſe Organs ſuch a Senſe of Pleaſure, as inclines Male and Female to go together, and puts it out of their power to abſtain from the Act of Generation. He hath likewiſe imprinted upon every Animal a natural Tenderneſs, which diſpoſes them to love their *Young*, to cheriſh, defend, and ſuckle them, and provide Food for them till they can do for themſelves.

Man and Woman are not exempted from this general Law: Neither are the Parts of Generation in them leſs ſenſible than thoſe of other Animals. For the Pleaſure found in the *Act* is a more general Inducement to Marriage than the Deſire of having Children: And this plainly ſhews the Wiſdom and Providence of God, who foreſaw that Man wou'd not mind *Generation*, if the Parts deſign'd for that Work had not ſuch an exquiſite Senſe of Pleaſure beſtow'd upon them, as ſpurs him on to the Act of it.

There are, however, a great many Men who oppoſe themſelves to this general Principle; for ſome, out of Devotion prefer Celebacy, and a *Monaſtick* Life; others are too lewd to bring themſelves under the Yoke of Marriage; others again are too covetous, and dread the Expence of bringing up Children. What Judgment the *Caſuiſts* will paſs upon ſuch Perſons, I know not; but ſure I am, they act contrary to the Intention

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of their *Creator*, whoſe Pleaſure it is the World ſhould be peopled; whereas, did every Man follow their Example, whole States would be ruin'd, and the World it ſelf would ſoon become a Deſart. Chap. 3.

And ſeeing there are *ſome*, on whom neither the Advantages nor Pleaſures of the Marriage-State can make impreſſion, and who neither deſire to perpetuate their Memory, nor ſupport the *Commonwealth*, by procreating of Children, and are therefore uſeleſs Members of the State; I wou'd have ſuch make amends for this to the Commonwealth ſome other way: And were it in my power, every one of them that hath attain'd to twenty five Years of Age ſhould pay a certain Sum, increaſing annually, and never to be taken off till he marries; and that this Money ſhou'd be laid out upon the Education of the Children of ſuch Perſons as cannot afford to bring them up.

*Plato*, and after him the greateſt *Philoſophers*, are of opinion, That thoſe who do not marry, and beget Children, are guilty of a Crime; for they are not only uſeleſs Members of the *Commonwealth*, but likewiſe renounce all Right to Immortality, and when they die, their Memory ceaſes for ever.

I have obſerv'd, that before we treat particularly of *Generation*, it was neceſſary that we ſhou'd underſtand the Parts, in both Sexes, appropriated to it: But this is not all; for we muſt likewiſe enquire into the Nature and Uſe of the *Semen* in Men, and the *Menſtrual* Blood in Women: to which we now proceed.

## CHAP. IV.

### *Of the Seed.*

THE Seed is a white, frothy, and ſpirituous Liquor, ſeparated from the Blood by the Teſticles, and abſolutely neceſſary to *Generation.* They who are of opinion that the *Fœtus* is made out of it, take it to be a Heap or great Number of little Particles of the ſeveral Parts of the Body from which they come, and that they are ſeparated from the Blood in the *Teſtes*, and that the *Fœtus* is form'd in the Womb by putting theſe Particles regularly together, which exactly correſpond, and are like to thoſe Parts from which they were taken.

All Anatomiſts, down to the laſt Age, were of opinion, That the Blood, out of which the Seed is made, being brought by the Spermatick Veſſels into the Teſticles, was there, by its Strength and Heat, concocted and changed into Seed. They thought alſo that the Spermatick Artery and Vein on each ſide were *anaſtomos'd*, and that the Venal and Arterial Blood were mix'd, and in their way to the Teſticle prepar'd to be turn'd into Seed; wherefore they call'd theſe Veſſels *Vaſa Præparantia.*

But the Circulation of the Blood, which was the happy Diſcovery of the laſt Age, fully refutes this Opinion; and 'tis now known and own'd that it is the Spermatick Artery only that carries the Blood from the *Aorta* to the Teſticle, and that the Spermatick Vein carries it back to the *Vena Cava.* But it hath never been de-

nied that the Blood was turn'd into Seed in the Teſticle, with this difference only, that it was made out of the Arterial Blood alone. And this *Mauriceau* maintain'd to his laſt Breath. Chap. 4.

Theſe three Opinions are equally true: And the modern Anatomiſts have done us the Favour to let us know that there's no ſuch thing as *Concoction* in the Teſtes, but that the Seed is only ſeparated and filtrated there, as all other Humours are in the *Glands*. So that without having recourſe to *Virtues* or *Faculties*, I ſhall explain what the Seed is, and how it is made: I mean Mens Seed; for of Womens I ſhall ſpeak in another place.

The Blood brought from the *Aorta* by the Spermatick Artery into the Teſticle, runs through its Subſtance, which is nothing but a great many ſmall Fibres, interwoven one with another, like to a very fine Sieve, and full of very ſmall Pores, which yet ſuffer the ſeminal Particles (mix'd with the Blood that circulates through the Teſticle) to paſs. The ſmall ſeminal Particles thus *ſecreted*, run along theſe Tubes to the *Epidydimes*, which lies on the upper part of the Teſticle, and is the beginning of the *Vas Deferens*; where being collected, they are carried and diſcharg'd by the *Vas Deferens* into the *Veſiculæ Seminales*, which are ſeated betwixt the Neck of the Bladder and the *Rectum*, and are the Conſervatories of the Seed; which we leave here, in due time to be brought out of theſe Receptacles, and immitted into the Womb, to impregnate the *Ovarium*, and communicate the prolifick Virtue to it.

## CHAP. V.

### *Of the* Menſtrual *Blood.*

THAT Blood which Women loſe, or at leaſt ought to loſe, once a Month, is called *Menſtrual.* It is the Will and Law of Nature, that Women ſhould loſe ſome Blood twelve times a Year, at a ſet time: and they are ſo accuſtom'd to this Evacuation, that they expect their *Courſes* regularly; for when they have them not ſo, they are uneaſy and unhealthful. Wherefore the Womb, whence this *Flux* of Blood comes, is compar'd to a Clock, becauſe it ſhews the good or bad ſtate of Health in Women.

Women, however, are not to expect *thoſe* while they are with Child; becauſe the Blood which they loſe at other times, is then ſpent upon the Nouriſhment of the *Fœtus:* neither is it to be thought they ſhould have *them* while they give Suck, becauſe the *Chyle* turns to Milk, and conſequently there's no need of Evacuation.

Girls begin to have their *Terms* about fourteen Years of Age, and are *then* look'd upon as Women; and if they have them either ſooner or later, 'tis contrary to the general Rule. Women ceaſe to have them about fifty Years of Age; wherefore they commonly bring Children from fourteen to that period.

The *menſtrual* Blood comes from the Arteries, in the bottom of the Womb; for the *Circulation* ſhews, that the Veins bring no Blood to it, but only carry back to the *Vena Cava* the overplus of that which was brought by the Arteries to the Womb.

When

When a Woman is with Child, the Arteries open into the *Placenta*, from which, by the Navel-String, the *maternal* Blood is carry'd to the *Fœtus*, for its Nouriſhment; and the remainder of this Blood is brought back to the *Placenta*, which diſcharges it into the Mouths of the Veins, to be carry'd back to the Maſs of Blood. Hence it is that big-belly'd Women have not, or at leaſt ought not to have *thoſe*; for tho there are *ſome*, who have them regularly the firſt Months, and others the whole time of *Geſtation*, this happens to very ſanguine and plethorick Women only, and therefore is to be conſider'd as an extraordinary Caſe. Chap. 5.

Nature hath not fix'd the Duration of the *menſtrual Flux*: for ſome have it twenty-four Hours only; others, two or three Days; others again, ſix or ſeven; according to the Temperament, Diet, Exerciſe, and ſometimes the Work that Women are oblig'd to do.

The Quantity of Blood to be evacuated can't be determin'd; ſome Women loſe very little, others are forc'd to uſe Linen-Cloths, otherwiſe they might be trac'd and expos'd by the print of the *menſtrual* Blood. The Ladies who live high, and ſit much, have their Courſes in great Quantities: for being over-ſtock'd with Blood, and uſing little or no exerciſe, had they not the Benefits of Nature, they could not live long.

The *menſtrual* Blood, in its own nature, is good and laudable, being deſign'd for, and employ'd in the Nouriſhment of the *Fœtus*; wherefore we have no reaſon to ſuſpect it of bad Qualities or Malignity, as the *Antients* did. 'Tis true, that ſome foul Seroſities which flow from the Glands in the Neck of the Womb, mixing with it, make it look worſe, and ſtain Linen with a red, not ſo fine as otherwiſe it would

be: but if we obſerve it as it comes out of the Arteries in the Bottom of the Womb, we ſhall find that its colour is bright, and that it is of the proper conſiſtence for the Nouriſhment of the *Fœtus*.

If it is ask'd, whether a Woman is more apt to conceive, ſome time after having her *Terms*, a little before, or immediately after them? We anſwer, That for the moſt part, ſhe conceives the very Day that her *Courſes* leave her; ſo the Man-Midwives reckon, and are ſeldom miſtaken: for during the Evacuation, and ſome ſhort time after it, the Womb being heated more than ordinary, by the Blood that flows into it, the Woman paſſionately deſires her Husband; and in the opinion of moſt Women, this is the time when they have the greateſt Pleaſure, and moſt readily conceive.

Tho 'tis abſolutely neceſſary towards a Woman's being healthful, that ſhe have her Courſes regularly; yet there are ſome Women who have never had them. Take one Inſtance of it. The Wife of one of the King's *Valets-de-Chambre*, told me, about ſeven or eight Years ago, That ſhe had never had her *own*; that ſhe had never been let blood; and that ſhe knew not ſo much as what colour her Blood was of, becauſe ſhe had never ſeen one drop of it: And what is more extraordinary, That her Mother having got a Country-woman to nurſe her at home, at *St. Germains*, who being troubled becauſe ſhe could not ſee her own Daughter, whom ſhe had put out to nurſe, earneſtly entreated her Mother to allow her to ſuckle her alſo, alledging that ſhe had Milk enough for both: Theſe two Women who ſuck'd the ſame Breaſts, have never had their Terms. They enjoy good Health, but have no Children, tho they have been marry'd theſe twenty Years.

CHAP.

# CHAP. VI.

## *Of Fruitfulneſs:*

FRuitfulneſs is that Diſpoſition and Fitneſs which all *Animals* have to beget their *Like*. But this Fitneſs would be of no uſe, if both Male and Female did not yield to the *Inſtinct* of *Copulation*, upon which *Generation* follows. All Animals are led by this *Inſtinct*, implanted in them by God at firſt: Man alone rebels againſt his *Sovereign*, and has Excuſes to make, but ſuch as are moſt pitiful and paltry, for this Diſobedience.

Under the *Old Teſtament* Diſpenſation, the fruitful Womb was look'd upon as a ſpecial Favour from God, and the great Bleſſing of the Marriage-ſtate; and the moſt numerous Families and Tribes were always reckon'd the moſt happy. There were *then* no *Monks*, nor *Friars*, every body marry'd and begat Children. In the Genealogy of our *Saviour* and the *Virgin Mary*, writ by the Evangeliſts, we read of a great many Patriarchs in a lineal Deſcent; but had any one of 'em, out of a whim, turn'd Monk, this Genealogy, on which the Salvation of Man depends, had been interrupted: as we have ſeen an end put to ſome of the beſt Families in *France*, through an indiſcreet and miſtaken Devotion.

But we need not look back into *Antiquity*; the Bleſſings of the *fruitful Womb* are ſeen and felt every day: it peoples the Univerſe; it gives Subjects to States and Common-wealths, and

raiſes up Children for the ſupport and preſervation of Families; it gives the Character of Father and Mother, to Man and Wife; it makes the Husband love his Wife more than he did before; and when he finds himſelf bleſs'd with Children, call'd by his Name, he endeavours every day to give her new Proofs of his Love and Reſpect: But where there are no Children, conjugal Love grows cold, Husband and Wife care little for one another, and the Husband (like a Gard'ner) is at no pains to cultivate the Tree which yields him no Fruit.

*Mauriceau*, who was married forty-ſix Years, but had no Children, ſays, That he knows not how to excuſe that paſſionate Deſire of being *Fathers*, which many have, except in ſuch as are of the Houſe of *Auſtria* or *Bourbon*; and that he thinks it ſtrange that common People ſhould long for that which is excuſable only in Monarchs, and Illuſtrious Perſons. They who have no Children, nor proſpect of having any, talk at *Mauriceau*'s rate, and give themſelves Airs, and affect Singularity, in expreſſing an indifference about Children to ſucceed them: but they really think otherwiſe; and there's not a Man of 'em, who would not give the half of his Eſtate to have a Child. This I have heard told to *Mauriceau* himſelf, oftner than once, and never Man deſir'd it more.

Certain and infallible Signs of Fruitfulneſs can't be given: it depends chiefly upon the Structure of the Womb, which is compos'd of ſeveral parts, every one of which ought to be in good order, that it may do its Office. And ſeeing we cannot rectify or amend the evil Conformation of the Parts of this *Organ*; if that's the Caſe, we are not to think much of it, that a Woman has

has no Children, tho every thing elſe about her is very promiſing. Chap. 6.

The general Signs of Fruitfulneſs, are, that a Woman has her Courſes regularly; that they are of a lively red colour, neither too many nor too few; that they flow without interruption about three days, and without pain; that the Woman is not too fat, miſhapen, nor eaten up with Vapours; that ſhe hath not the *Whites*, the Green-Sickneſs, nor a deprav'd Appetite; and that ſhe is freſh-colour'd, and of a *ſanguine* Complexion, which is by far the beſt.

Tho a Woman has all theſe Diſpoſitions and Requiſites, yet ſtill 'tis neceſſary that her Imagination be heated by the *Foretaſtes* of Love, and that ſhe earneſtly long after the *full* Enjoyment, and give herſelf wholly up to it; that ſhe ſhould be nicely ſenſible of what paſſes; and ſo purſue the Pleaſure, as to forget and deſpiſe every thing elſe, when in the Embraces of her Husband.

As a piece of Ground, that it may yield well, muſt not only be good, but alſo be ſown with good Grain; ſo a Woman, having all the good Qualities and Conditions that we have taken notice of, muſt likewiſe receive from Man, good and laudable *Seed*, that ſhe may conceive and bring forth. It is not the Seed of every Man, however, that can do this; for we ſee ſeveral Women, who ſeem to be cut out to bring Children, who have none: and in ſuch Caſes we may reaſonably ſuppoſe, that the Defect or Fault lies in the Husband, who ſows not his Ground with good Seed. Daily Experience alſo ſhews, that a great many Women, who had not Children by their firſt Husbands, have them by a ſecond.

As the Fruitfulneſs of Women often depends upon the goodneſs of the Husband's Seed, ſo the beſt is that which comes from the *Sanguine* Temperament;

Book I. rament; for that of the *Bilious* is ſharp; from the *Melancholick*, it is too viſcid and thick; the *Phlegmatick* gives it too cold and ſerous: but that of the *Sanguine*, is white, frothy, and of a proper conſiſtence to impregnate the *Ova*. And I muſt add, that the *Sanguine* is by far the beſt of the *Temperaments*; for it is ſweet, ſincere, affable, kind, open, and the leaſt vicious of any of 'em. This alſo has the power to win the Hearts of the Ladies, who love it better than any other, and bring Children moſt readily and frequently by it.

## CHAP. VII.

### *Of Barrenneſs.*

BArrenneſs is an Indiſpoſition, or Intemperature of the whole Body, and in particular of the Womb, to conceive and bring forth. A barren Woman is no leſs ſlighted and deſpiſed, than the fruitful Womb is valued and praiſed. And indeed, it is not to be wonder'd at; for what is a barren Woman good for? Of what uſe is ſhe to the World? She is like an unfruitful piece of Ground, that yields nothing to the Sower.

Barrenneſs is either *natural*, and proceeds from the wrong Conformation and Structure of the Parts of the Womb, and others depending upon it; which we can neither ſee into, nor find a Remedy for: or it is *accidental*; and then the cauſe is known; and it is to be remedy'd by the Care and Skill of the Surgeon.

The

The most ordinary Causes of natural Barrenness are, That the Bottom of the Womb is too hard, which hinders the menstrual Blood from flowing out of the Mouths of the Capillary Arteries, and permits not the *Egg* and *Placenta* to take root, and be join'd with it. An Obstruction of the *Tubæ Fallopianæ*, near to the Womb, which neither suffers the Seed to be carry'd up to the *Ovarium*, nor the *Ovum* to fall down into the Womb. The Structure of the Parts of the *Tuba* such, as hinders its embracing the *Ovum* straitly, to receive and convey it into the Womb. The Membrane of the *Ovarium* so thick, that the Seed cannot penetrate the *Ovum*, to loosen and bring it off. Several Impediments of this nature make a Woman barren all her life: and those Women who have had several Husbands, but no Children, may be assur'd, that some one or other of these natural Defects, is the reason of it. Chap. 7.

The Causes of accidental Barrenness, are said to be four. The first, a bad *Habit* of Body: the second, the Impurities or the Foulness of the Womb: the third, its internal Orifice being *callous*, or turn'd a little aside: the fourth, the *Vagina* shut and imperforated.

By an ill Habit of Body, we understand, a slow Fever, that weakens and undermines the Patient: an universal Leanness, even of the most solid Parts; the Mass of Blood corrupted; and its seminal Particles so alter'd in their Cohesions, and turn'd so sharp, that they can't be brought together in the *Ovum*, or be the *Stamina* of a *Fœtus* there. To these we may add, Indolence for Action, Insensibility of Pleasure, and a Distelish of conjugal Love.

Tho the Womb is the most noble and necessary Part in the production of Man, it is nevertheless a Common-Sewer, by which the Terms

are

Book I. are carry'd off every Month, and the *Lochia* or *Cleanſings* in Childbed. And indeed, did it give paſſage only to theſe two regular Evacuations, it would not be barren; on the contrary, it would rather be more teeming: but the *Whites*, and other Impurities which frequently flow into and ulcerate it, make it uncapable of performing its natural Functions, and of conceiving or bringing forth Children.

The third Cauſe of Barrenneſs, is *either* the Hardneſs and *Calloſity* of the mouth of the Womb, which hinders it from opening to receive, or ſhutting to retain the Seed immitted; or the internal Orifice not plac'd directly againſt the external, or *Vagina*, but turn'd ſome way aſide, ſo that the Seed cannot be darted into it in a ſtrait Line, and conſequently cannot get into the Womb.

Fourthly, a Woman muſt be barren, when the *Vagina* is ſo clos'd and ſtopp'd, that the Man's Yard cannot enter; which is occaſion'd either by the *Caruncula Myrtiformes* being too cloſely join'd, or by a ſupernumerary Membrane, that ſtops the paſſage. There are ſo many Inſtances of Maids who have come into the world imperforated, that no body can doubt of it; and we know, that ſome have been oblig'd to have recourſe to Surgeons, to have a paſſage made for the *Menſtrua*, and the entring of the Yard, for conſummation of Marriage. And *Fabricius* brings an Inſtance of a Servant-Maid, whoſe Maidenhead could not be taken by all the Scholars of a Boarding-School.

There's a Remedy for each of theſe accidental Cauſes: for the firſt, by taking off the Fever, purifying the Maſs of Blood, and procuring the Patient a good Habit of Body. For the ſecond, by evacuating and diverting the Impurities and bad Humours which flow into the Womb. For the third,

third, by ſoftening its internal Orifice with e- Chap. 7.
mollient Injections; and by ordering the Woman, in the venereal Act, to incline to the right or left ſide, as the mouth of the Womb is turned; and if it fronts to the *Inteſtinum Rectum*, by uſing the Poſture of Beaſts, which is certainly the beſt and moſt natural. The fourth cauſe of *Sterility* is remov'd, by ſeparating the *Caruncula*, or opening the ſupernumerary Membrane, that the Yard may enter, and dart the Seed into the Womb, that Generation may be no longer fruſtrated.

Barrenneſs has always been look'd upon as a very great and eſſential Defect. Women who have no Children, are ſlighted, and compar'd to a dry Tree which bears no Fruit, but is pull'd up by the Roots, and caſt into the Fire. Under the *Old Teſtament* Diſpenſation, Barrenneſs was taken to be a Judgment from the *Lord*: and ſuch Women as had no Children, were neither diſpleaſed when their Husbands went in to their Maid-Servants, nor when they deſir'd to have their Marriage diſſolv'd, that they might take other Wives; for Children were then eſteemed the great and chief Bleſſing of the Marriage-State.

It is ſo natural for Man and Wife to deſire to have Children, that it is almoſt criminal to be without this Paſſion; and they who are not ſubject to it, deſerve to be conſider'd as Monſters in Nature, who care not tho the Race of Man ſhould fail: whereas it is the Duty of every one, to do all that's in his power to have Children. And therefore, ſuch as have been long marry'd, and have none, are in Conſcience bound to conſult Phyſicians or Surgeons, bathe themſelves, drink *the Waters*, and take every thing preſcrib'd 'em. And after all, if no Child comes, they have not themſelves to blame, for they have ſhewn their Good-will, and done their Duty.

*Henry*

Book I. *Henry* II. was many Years marry'd to *Catherine de Medicis*, but had no Children: wherefore he consulted his first Physician, *Fernelius*, who having found out the Defect, shew'd him the Posture he was to use when he lay with the Queen, who afterwards brought him seven or eight Children.

*Henry* IV. also having no Children by Q. *Catherine*, his first Wife, tho they had been marry'd a great number of Years, and had taken a great many Medicines without success, obtain'd a Divorce, and marry'd *Mary de Medicis*, who brought him several Children: which shews us, that Barrenness has been thought a sufficient reason for dissolving Marriages.

*Lewis* XIII. was marry'd twenty Years to *Ann* of *Austria*, who was never once with Child all that time: a thing not to be wonder'd at; for the King car'd not for Women, and seldom liv'd with the Queen. But after that time, either out of a greater liking to her, or that his Confessor had enjoin'd him, by way of Penance, to lie with her; she brought him two Princes: which shews, that it's not the *Sacrament*, but the Husband's doing his Duty, that gives Children.

Barrenness is esteem'd a very great Imperfection and Defect, not only in Women, but also in Men; for Eunuchs are shunn'd and despis'd by all Mankind, not only as good for nothing, but of a disagreeable Aspect, that bodes no good where-ever they come: and even in a Hen-house, Capons and Pullets are chas'd up and down, and peck'd by all other Fowls, that have an Aversion to them, tho they know not what moves them to it. Thus, by the Appointment and Instinct of Nature, every Animal that cannot engender, or bring forth, is defective and contemptible.

I look upon the Powers of Generation that are bestow'd upon every Animal, as a Talent given to them by the Author of Nature, for the preservation of their several Kinds; and I'm persuaded that those Men and Women who do not use these Powers, and do not marry, act contrary to the Intention and Will of their Creator, who instituted Marriage before the Sacraments. Chap. 8.

## CHAP. VIII.

### *Of Conception.*

THE Rudiments of an *Embryo*, or Animal just begot, by the Conjunction of Male and Female, is called a Conception. In the foregoing Chapter we have shewn how a Woman conceives; and in this, are resolv'd to give you the Signs of her having conceived.

A Surgeon is not consulted oftener in any Case than the Doubts and Scruples that Women have about their being with Child, or not. And nothing puzzles him more than to give a proper Answer; for they speak very often as they would have it themselves. Such as long to be with Child, take notice of nothing that makes against them: Others, on the contrary, who wish for nothing less, conceal every thing that might convince them that they are certainly with Child. And they are so little sincere on this Head, almost to a Woman, that the Surgeon ought seldom or never to lay any Stress upon what they say, or be positive in his *Prognostick*. His Business is to give them the hearing, and to seem to believe whatever they say; but to suspend his Judgment,

ment, becauſe of the bad Conſequences that might enſue, in caſe they ſhould prove to be with Child, after he had aſſur'd them that they were not ſo.

That a Surgeon may not miſtake when he gives his Opinion about a Conception, he muſt diſtinguiſh the Signs of it into ſuch as go before the Act of Generation; ſuch as accompany it; ſuch as follow immediately upon it; and, laſtly, into ſuch as appear not but for ſome time after.

The antecedent Signs are, That a Woman is of a healthful Look, neither too fat nor lean, good-humour'd, and amorous, loves her Huſband: And when he is gone a Voyage, earneſtly longs for his Return; and when he comes home leaps for Joy, in expectation of the greateſt Pleaſure from him: Laſtly, if he comes when her Courſes are juſt over, or a few Days after, at moſt. I ſay, a Woman in theſe Circumſtances bids very fair to conceive.

The concomitant Signs are the earneſt Deſire that a Woman has to enjoy her Husband, that Eagerneſs with which ſhe receives him, the mutual Pleaſure that they find; that the Husband is ſenſible that the *Glans* ſtrikes againſt the Mouth of the Womb, which gives a double Pleaſure to the Woman; that both Sexes emit at the ſame time: for tho that which is call'd the Seed of the Woman ſerves only to give her more Pleaſure, yet it ſhows that the Womb is heated, and in Fury, (ſo to ſpeak it) which meets the Man's Seed, and having receiv'd it, contracts, compreſſes it, and thruſts it into the *Tubæ*, by which 'tis carried to the *Ovarium*. Women that have had many Children know that they have conceived, if immediately after Emiſſion they feel a Fluttering and contractile Motion; which is look'd upon as an infallible Sign of Conception.

The

The Signs which follow immediately upon the *Act*, according to *Mauriceau*, are that the Man's Yard is drawn out drier than ordinary, that the Woman is not wet; for this Author ſuppoſes that both the Seeds are retained, and that the *Fœtus* is made out of them. But that's falſe; for a very ſmall part of the Man's Seed is carried to the *Ovarium*, and the Woman is wet as uſual. Other Signs are, that ſhe has a ſlight Pain of the Navel, that the Region of the Womb is a little flat, that ſhe is more diſpirited and fatigu'd with the *Act* than uſual, and has no Deſire to repeat it. Theſe are pretty conſiderable and ſure Marks of Conception. Chap. 8.

The Signs which appear ſome Days after the *Act* are very many: The Woman is ſad, moroſe, ſlothful, drowſy; ſhe loſes her Appetite, and refuſes to eat, even the Meats which ſhe lik'd beſt before; ſhe longs for ſtrange and odd Meats: Her Eyes look livid, hollow, and languiſhing; her Breaſts begin to pain her, to grow big and hard; the Circle that goes round them is broader and browner, the Nipples are bigger and higher: She ſpits more than ordinary, is troubled with the Tooth-ach, and ſometimes vomits; ſhe's leſs fond of her Husband than uſual, and her *Menſtrua* are ſuppreſs'd. Theſe are all Signs of a Conception;

But are far from being infallible ones: For the Stoppage of the Terms in Women not with Child, very often produces a great many of theſe Symptoms. Wherefore the Surgeon ought to be very cautious in pronouncing a Woman with Child, or not: He hazards nothing by giving his Opinion modeſtly, for Time brings Things to light: He may well repent himſelf of being poſitive, but never of being prudently reſerv'd.

In any conſiderable Diſtemper, that requires great and powerful Medicines, if a Woman is thought to be with Child, the Phyſicians muſt order none of them till they know certainly that ſhe is not with Child: But who can ſatisfy them ſo well in this Point as the Man-Midwife? Who having examin'd and maturely weigh'd every Circumſtance, yet ought not to be too confident; for every Woman, who is in the power of her Husband, may fall with Child at any time: And how frightful would it be to ſee her bring forth a dead Child, after Aſſurances given that ſhe was not with Child, and after moſt powerful and violent Medicines have been preſcrib'd for her, as has happen'd too often? or if in ſpite of all theſe Medicines, ſhe ſhould bring the Child at the full Time, as I ſaw it once my ſelf?

If a Surgeon is conſulted by an uneaſy and ſuſpicious Mother, who judges uncharitably of her Daughter, or by another, who has too much Honeſty and Goodneſs to think that her Daughter is with Child, tho ſhe is really ſo, he muſt act the part of a Mediator, and be tender both of the Reputation of the Daughter and the Family, and take care not to incenſe the Parents againſt the Daughter, or furniſh the whole Town with a Subject of Diſcourſe and Laughter.

Women condemn'd to die frequently plead their Bellies: But then thoſe who are appointed to examine them, and make a Report, muſt not follow the Example of a Midwife, who upon the like occaſion told the Judges that the Criminal was not with Child; but after her Execution, at a publick Diſſection, a Child three Months and a half old was found in her Womb. It is true, that there are a great many of theſe Wretches, who confidently maintain they are with Child, that the Puniſhment of their Crimes may be

be put off for ſome time. But however it be, it is much better to delay Executions for ſome Months, than to hazard the Deſtruction of an innocent Child with the Mother. Chap. 9.

We know that Women conceive every Day, and that the Womb is the Place where all Conceptions are conducted; but it's very difficult to underſtand the Nature and Manner of them, and we are ſtill more puzzled by the various Opinions of thoſe who have treated of this Subject. Wherefore, in the next Chapter, I ſhall ſet before you the three principal ones, that you may judge of them, and chuſe that which you think the moſt probable.

## CHAP. IX.

### *Three Opinions about Generation.*

WE need not think it ſtrange, that there are ſo many different Opinions about Generation, which is the moſt hidden Work of Nature; I ſhall confine my ſelf to the Conſideration of the three principal ones. The firſt is, That Man furniſhes the whole Matter out of which the *Fœtus* is made: The ſecond, That Man and Woman's Seed are equally the Matter of it: The third, That it is form'd in the *Ovum* of the Woman, fecundated by the Seed of the Man.

The firſt was the Opinion of the Antients, and amongſt the reſt of *Ariſtotle:* They thought the *Virile* Seed alone ſufficient to produce another Man; and that the Seed being darted and received into the Womb, its Mouth ſhut ſo cloſely, that nothing could either enter it, or get out;

Book I. and that afterwards the Particles of the Seed, of which the ſeveral Parts of the Body are compos'd, were regularly plac'd and join'd.

They conſider'd and look'd upon a Woman as a fruitful Piece of Ground, into which the Labourer caſts the Seed, but which yields not, if not well ſown. It was their Opinion, That Man furniſhes the Seed, and the Woman finds a Place and Nouriſhment for the *Fœtus*, till it is ſtrong enough by the Efforts it makes to get out of its Priſon.

The Antients went ſtill further, and affirm'd that the *Females* were imperfect *Animals*; and that Nature intended to make *Males* only, and that the Females came by her Miſtakes. But this Opinion of the Philoſophers is fully refuted by the Word of God, which teaches and aſſures us, That Male and Female were both the Work of God's Hands, and conſequently equally perfect.

The ſecond Opinion prevail'd for fifteen or ſixteen Centuries, and better; during which Time all Anatomiſts believ'd that Generation was the Effect of the Mixture of both Seeds; and that Man and Woman contributed equally towards the Formation of the *Fœtus*.

This Opinion was ſo univerſally receiv'd, and ſupported by ſo many Reaſons and Facts, which ſatisfied the Philoſophers of that Time, that no body ever thought of controverting it. And 'tis very likely that we ſhou'd have been of the ſame Opinion at this day, had not ſome Anatomiſts of the laſt Age made it appear that Man, as well as all other Animals, is *ab Ovo*.

It is not to be wonder'd at, that this Opinion prevail'd ſo long; for ſo many Circumſtances ſeem'd to favour it, that it was no eaſy Task to reject it. And we ſee that *Mauriceau* was ſo drawn in by the plauſible Reaſons produc'd for it, that

that he was so much persuaded of the Truth of it, that tho the Discovery of the *Ova* was made in his Time, yet he cou'd never be prevail'd with to alter his Sentiment; but on the contrary, in all his Writings maintain'd the Doctrine of Generation, as he had laid it down. Chap. 9.

He was likewise of opinion, that Women have two Testicles, as Men have; and that they are situated in the *Abdomen*, above the Womb, that the Seed, which is more serous and watry than that of Man, might, by the Warmth of that Place, be made more spirituous, elaborate, and in all respects what it ought to be; and that the Blood was concocted and chang'd into Seed in the Testicles, as in *those* of Men; and that it was laid up and contain'd there in little Vesicles, to be brought afterwards by the ejaculatory Vessels into the Womb in the Act of Generation.

The Seed of the Woman, according to *Mauriceau*, being pour'd with Tickling and Pleasure into the Womb at the same time that that of Man is emitted into the *Vagina*, and thence into the Womb, the internal Orifice of the *Uterus* shuts so closely, that no part of either Seeds can flow out of it; and being contracted, it embraces and compresses them both, and by its Heat reduces from *Power* into *Act*, the several *Faculties* of the Seeds that it contains, by the help of the Spirits with which these frothy and fermenting Seeds abound, and which being put into motion by God, in the very Moment of Conception, are the Instruments wherewith it begins to draw the first Lines of the several Parts of the Body; to which afterwards it gives Growth, and the finishing Stroke, with the assistance of the Menstrual Blood that flows into it, as has been explain'd.

Book I.

But it is objected, That if Generation were brought about after this manner, a Woman behov'd not to *know* her Husband when with Child; becauſe her Seed, pour'd into the Womb in the *Act*, wou'd diſturb the *Conception*, and cauſe an Abortion. In anſwer to this Objection it is alledg'd, That there's another ejaculatory Veſſel, which, when a Woman is with Child, conveys her Seed into the Neck of the Womb; and that this Veſſel being longer than the other, big-bellied Women have more Pleaſure in the *Enjoyment*, than thoſe who are not with Child: for by reaſon of the greater Length of the Veſſel that carries the Seed, that tickling Pleaſure that's ſo well known is not ſo quickly over. But theſe ejaculatory Veſſels, which can't be ſhewn in human Body, are no other than imaginary ones, and conſequently the Pleaſure that Women with Child are ſaid to have beyond others, and which they themſelves diſown, falls to the ground.

The two Parts ſituated below, and at ſome diſtance from the Bottom of the Womb, which the *Antients* call'd the Teſticles, are not really ſuch, but are two Bodies, compos'd each of ten or twelve Veſicles, of the Bigneſs of a large Pea, faſtned to little Stalks in form of Grapes, which they very much reſemble. They have no Communication one with another, and contain each a Liquor, out of which the *Fœtus* is produc'd; as the Eggs, which compoſe the *Ovarium* of a Hen, contain each of 'em *that* out of which a Pullet comes.

Now, according to *Mauriceau*, theſe Veſicles, of which, he ſays, the Teſticles in Women are compos'd, ought to have a Communication one with another, that they may diſcharge the Liquor which they contain into the ejaculatory Veſſel, which that Author beſtows upon them.

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He ought likewiſe to have ſhewn us *that* ſecond Veſſel, by which he ſuppoſes the Seed convey'd into the *Vagina*, when a Woman is with Child. He ought alſo to have demonſtrated the Uſeleſſneſs of ſeveral Parts in the Neck of the Womb, and its external Orifice; and in particular, of the *Clitoris*, of which he ſays not one word. But ſince there's no Part of human Body, that noble and moſt perfect *Machine*, which is not of ſome uſe; we will do our beſt to find out the Office and Functions of theſe now ſpoke of. Chap. 9.

This Opinion about the Mixture of Seeds has ſo many Difficulties in it, that it is almoſt impoſſible to remove them; and what makes it ſtill more ſo, is, That the Abettors of it have recourſe in their Explication to certain Faculties, Virtues, and divine Motions, which give no manner of Satisfaction to the *Phyſician*, who wants to have the natural Cauſes of every *Phænomenon* explain'd and illuſtrated by natural Motions and Effects.

We own that God is the Creator of all Things; and we underſtand by Nature a ſecond Cauſe, which moves all Things, as they were by God at firſt, and ſuitably to their Structure and Mechaniſm. By this Principle, let us try to find out as far as we can the Nature of Generation, and how the *Fœtus* is form'd; but let us not make uſe of *occult* Qualities or *Faculties*, which are inſignificant Terms, and teach us nothing.

The Scriptures inform us that, in creating the World, and every thing contain'd in it, God ſaid, *Let it be, and it was made.* And as it was his Pleaſure that every Animal ſhou'd propagate for the preſerving and multiplying of the Species, ſo the Diſcoveries of ſome able and learned Phyſicians teach us, that God has appointed one

uniform Way only for the Production of all Things, and that is, by the means of an *Egg*.

By an *Egg*, we underſtand not only that of Birds, which is the common Acceptation of the Word; but alſo that of Animals, Fiſhes, Inſects, and Plants. In a word, by an *Egg* is meant every thing that contains in it a Being, like to that from which it comes.

It is well known that the Eggs of Birds contain that Matter out of which Young-ones are produc'd; that thoſe of Fiſhes contain other Fiſhes; thoſe of Inſects little Inſects; and that from the Seed of Plants, there ariſes a Plant like to that from which the Seed is taken. Terreſtrial Animals only were not thought to be *ab Ovo*; becauſe they are conceiv'd and nouriſh'd in the Womb, and come not into the World till they are perfectly form'd: They are generated however by the Impregnation of the Egg, as other Animals are, but with this Difference, That Birds hatch their Young by ſitting on the Eggs, but other Animals, and amongſt them Woman, cheriſh and nouriſh the *Fœtus* in the Womb.

By what I have already ſaid of the Opinion about Eggs, it is eaſy to perceive that I am fully perſuaded this is the only way that God has appointed for the Production of all Things both in the Animal and Vegetable Kingdom. Of this I ſhall endeavour to convince the Reader, by explaining Generation after the plaineſt and moſt intelligible Manner that I am capable of.

# CHAP. X.

## *Of the Formation of the* Fœtus.

I Shall avoid as much as poſſible the uſing any Words which may give offence to modeſt Readers; and ſhall chuſe ſuch only, as Phyſicians and Naturaliſts are forc'd to employ, for expreſſing and declaring the whole Circumſtances of an *Action*, which every one likes to practiſe, but not to ſpeak of.

The firſt Circumſtance that is abſolutely neceſſary to *Generation*, is the Difference of Sexes; for the Male without the Female, or the Female without the Male, ſignify nothing: they muſt likewiſe go together, and *copulate*; for did they only look upon one another, they would never have Children.

All Animals, each in their Kind, copulate in that Poſture to which they are directed by natural Inſtinct; Man alone hath invented, and uſes various ones for his Diverſion and Entertainment. But, muſt he ſeek for a Provocative to an Action, which he is oblig'd to perform after the moſt ſimple and ready way, as the moſt natural? I won't enter into Particulars upon this Head, but ſhall only obſerve, that the moſt convenient Poſture for Generation, is that in which the Seed can be thrown directly into the Womb.

Animals do not hide themſelves when they *copulate*; they do it in all places where they meet: Man alone gets out of ſight, and ſeems to be aſham'd of begetting his Like. But in antient times, it was not ſo: for when the Philoſopher was ask'd, what he was doing? he anſwer'd boldly,

Book I. boldly, That he was planting a Man. And pray, what more harm is there in planting a Man, than a Cabbage?

But that Copulation may have the desir'd effect, both Sexes must act their respective parts. Let us examine first, what is requir'd in the and next, in the Female.

On the part of the Male, there must be Erection, Introduction, and Ejaculation. If any one of these Conditions is wanting, the Work is marr'd; for they must succeed one another, and that very readily too.

By Erection is meant, that Stiffness of the Yard, produc'd by the arterial Blood brought into the *Corpora cavernosa*, when the Imagination is heated either by the Presence of an Object, or the Idea of Pleasure earnestly desir'd: for the Blood at that time fills these big Nerves, swells them, and makes them so stiff, that the Yard grows furious, and seeks to be satisfy'd: the Animal has no more command of itself, and Man very often forgets and loses the Exercise of his Reason.

By Introduction is understood, the entering of the Yard, so erected, into the Neck of the Womb, that is no less eager to receive it, than it is to enter: and these two Parts are as well fitted to one another, as a Sheath is to a Knife; wherefore, the Neck of the Womb is call'd the *Vagina*. These Parts, at that time, feel a mutual tickling Pleasure, produc'd by rubbing one on another; and then Emission is ardently wish'd for by both Parties, as the height of Pleasure, and the full Enjoyment.

By Ejaculation, we mean, Emission of the Male Seed; which being brought out of the *Vesiculæ Seminales*, forces its passage thro the ejaculatory Vessels, and is hurry'd out of the *Urethra* by the Muscles of the same name, and thrown into the Womb.

Womb. Then it is, that the Pleaſure is ſo very great, that the Imagination, and all other Senſations, are, as it were, transferr'd from all other Parts to theſe; inſomuch, that what was at firſt a Pleaſure, becomes at laſt a kind of Extaſy. Ch. 10.

If theſe three Conditions are found on the Man's part, it is no fault of his if the Woman conceives not. Let us conſider next what is requir'd of her.

We ſuppoſe a Woman of a ſound Conſtitution, without any natural Defect, full fourteen Years of Age, in the Arms of her Husband, whom ſhe's perfectly fond of, and allows to do whatever he pleaſes, in obedience to Nature: in theſe favourable and happy Circumſtances, the Yard being erected, and introduc'd into the *Vagina*, the Seed immitted directly into the mouth of the Womb, is greedily receiv'd, and by the Contraction of the *Uterus*, is puſh'd through the *Tubæ Fallopianæ*, to the *Ovarium*, where it impregnates the firſt ripe Egg that it meets with, and brings it from the *Ovarium* back into the *Tubæ*, which carries it into the Womb, whence in due time the *Fœtus* is expell'd.

Tho the Formation of the *Embryo*, as it has been explain'd, has been diſcover'd only of late, yet 'tis certain, that it has been the ſame from the beginning, and may be eaſily underſtood, without any ſupernatural Aſſiſtance or Revelation; ſince it is purely mechanical, as will appear, if we conſider the Structure of the Womb, and the Parts which belong to it. However, for the Conviction of ſuch as are mightily prejudic'd againſt the Opinion of the *Ovæ*, I hope I ſhall be able to explain Generation ſo, that they ſhall be entirely ſatisfy'd. In order

Book I. order to which, be pleas'd to obſerve the following Particulars.

I have made it appear, contrary to the Opinion of moſt Anatomiſts, that the uſe of the *Ligamenta Rotunda*, is to bring the bottom of the Womb forward towards the Yard, for the reception of the Seed: theſe Ligaments having done their Office, the Seed being receiv'd into the Womb, and its internal Office being exactly clos'd, the Womb contracts; and its Cavity being ſmaller, it compreſſes the Seed, and forces it into the *Tubæ Fallopianæ*, and thence up to the *Ovaria*.

It is to be remember'd, that the Womb is not perfectly round, but broad and flat; and that when it contracts, its fore and back ſides are brought nearer to one another, like the round Copper-Plates of a Wafer-Iron; and preſſing upon the Seed, ſqueeze it into the *Tubæ*, as has been explain'd. This Motion of the Womb, which Women are very ſenſible of, inclin'd thoſe who maintain'd the mixture of the two Seeds, to believe, that the Womb contracted purely to embrace them; and that this Motion was an infallible Sign of a Conception.

The ſtrongeſt Objection againſt the *Ovariſts*, is, That the *Tubæ* being open at their Extremities, the Seed receiv'd by them, muſt neceſſarily fall into the *Abdomen*; and that in order to carry it to the *Ovarium*, the *Tubæ* muſt have an Inſtinct or Faculty to join the *Ovarium*, at that time; for at all others, they are at ſome diſtance from it, as may be ſeen in every dead Body.

To this Objection, it is anſwer'd, That when the *Ligamenta Rotunda* bring the Body of the Womb nearer to the Yard, they pull the Extremities of the *Tubæ* which are faſten'd to it, and then the other Extremities of the *Tubæ* mount up,

up, and join the *Ovaria*. Moreover, the broad Ligaments, which are ty'd to the bottom of the Womb, muſt have the ſame Motion with it, when it is mov'd downwards; and conſequently the *Ovaria*, which are faſtned to thoſe Ligaments, muſt be pull'd downwards alſo, at the ſame time. Thus the Extremity of the *Tubæ* mounting up, and the *Ovarium* deſcending by one and the ſame Motion, they are brought together; and the *Ovarium* is penetrated by the Seed, convey'd by the *Tuba*, which receives the Egg that comes from the *Ovarium*, and carries it to the Womb. Ch. 10.

Theſe Parts need neither Inſtinct nor Faculties to enable them to perform their Offices, no more than Bells, faſtened to a Rope, which will infallibly ring, if you will but pull it. Juſt ſo theſe Parts act, and are mov'd by a Spring which depends entirely upon their *Make*, and moſt admirable Structure.

The Eggs which compoſe the *Ovarium*, are not all of the ſame bigneſs; the ripeſt are always the biggeſt: they have a very fine Skin, which contains a Liquor like that of the White of an Egg, and when boil'd they grow hard, like the White of a Hen's Egg. The *Fœtus* is form'd out of this Liquor, as a Chicken is out of the White of an Egg.

The Eggs of Birds differ from thoſe of other Animals, which have one Membrane that contains one ſimple Liquor only; whereas they have a Shell and a Yolk alſo, to ſave them from a great many little Accidents during the time that they are hatching. The Yolk ſerves for Nouriſhment to the Bird, while it is in the Shell. Other Animals which cheriſh and nouriſh their Young in the Womb, have no occaſion for Yolk or Shell.

The

Book I. The Seed of the Male muſt penetrate the *Ova*, to fecundate them. Thus we ſee that the Eggs of Hens that have not been treaded, are clear and addle. But tho it is very well known, that the Seed of the Male fecundates the Egg, yet 'tis no eaſy matter to underſtand, how this is done. However, we will do our beſt to make it pretty clear and plain. The moment that Man emits the two firſt drops of the Seed, that is to ſay, the moſt ſubtile and ſpirituous Parts of it, are thrown and darted with force out of the Yard into the Womb, while the groſſer and thicker ones move heavily along the Yard, in a drivelling manner, and are lodg'd in the *Vagina*. The two firſt Drops being receiv'd by the Womb, and forthwith forwarded to the *Ovarium*, ſtriking upon the firſt Egg they meet with, pierce it, mix with the Liquor which it contains, agitate and rarify it ſo, that it tears the Membrane; and being too big to be any longer contain'd in that ſmall Cavity, falls into the *Tuba*, and is carry'd into the Womb.

I have known ſome Maids, who, to their Sorrow, have experienc'd the truth of what I advance; for not having permitted their Gallants to enter their Bodies, or emit, but betwixt their Thighs only, leſt they ſhould prove with Child, they thought themſelves very ſecure; but afterwards found, that they were Maids with big Bellies, a thing not ſo very hard to be conceiv'd as ſome imagine: for in the heat of the Act, the Womb, greedy of both the Yard and Seed, advanc'd even to the external Orifice, and the two firſt Drops, or the moſt ſpirituous parts of the Gallant's Seed being darted directly againſt the Orifice, were receiv'd and carry'd to the *Ovarium*; and theſe Maids were got with Child, tho the Yard was not introduc'd, and tho the coarſer parts

parts of the Seed were ſpent between their Thighs only. Ch. 10.

I was lately conſulted upon this head, by a Prieſt, to whom the Daughter of a certain Family had made Confeſſion to the ſame purpoſe. The Confeſſor was of opinion, that there was more in it, till I ſhew'd him the poſſibility of the thing. Upon which he left me, with a full Reſolution to uſe all his Intereſt with the Relations, to have the Parties married.

Hence it is evident, that the ſpirituous part of the Seed, contain'd in the firſt Drops, communicates the prolifick Virtue to the Egg, and that the groſſer part ſerves only as a Vehicle to it till it is lodg'd in the Womb; other Caſes and Circumſtances contribute likewiſe to overthrow the Opinion of the mixture of both Seeds; and they who maintain'd it, were perſuaded that the far greater part of the Seed enter'd the Womb, and conſequently that the Woman found herſelf dry after the *Act* which is alſo falſe; for whether ſhe conceives or not, ſhe is always wet, and oblig'd to wipe herſelf, as every body knows.

It is an eaſy matter to conceive, that the more ſubtile parts of the Seed, which are, as it were, the *Elixir* or *Eſſence* of it, do pierce the Membrane of the Egg, and impregnate the *Ovum*; for we ſee the Sap of the Earth, which is not near ſo penetrating as the Seed, ſoaks thro the Membranes of the Grain thrown into it, ſwells it, and makes it ſpring in a very ſhort time.

It is about ten Years ſince a new Opinion was broach'd, That Man, and all other Animals, proceeded from a Worm; and that there is an infinite number of little Worms in the Seed of every Animal, which they call'd *Seminary*, and which may be ſeen with the help of a Microſcope, as thoſe that ſwim in Vinegar are; and that while the

Book I. the Seed is warm, their motion is perceptible, but no longer. They fancy'd, that one of the Worms contain'd in the Seed that reaches the Egg, pierces the Membrane, and lodges itſelf in the Egg, and becomes the firſt Principle and Stamen of the Animal: and they imagin'd, that not only the Seed, but all other Liquors, and every Part of an Animal is full of Worms.

But this Opinion loſt ground, by little and little, and the Authors and Abettors of it were not able to maintain it, becauſe they undertook to make it appear, that there are ſome thouſands of little Worms in a very ſmall quantity of Seed, but that one Worm only impregnated the Egg, and that all the reſt were uſeleſs. But whether a Worm, or the ſpirituous part of the Seed impregnates the Egg, the caſe is the ſame; it afterwards gets clear, enters the *Tuba*, and falls into the Womb.

The *Tubæ* are membranous Pipes, the Orifices of whoſe moving Extremities are larger than thoſe, which open into the Womb. They very much reſemble two little Tunnels; and having receiv'd the Egg at the broader Extremity, embrace it, and by a vermicular Motion, like that of the Inteſtines, preſs it gently, and carry it into the Womb.

CHAP.

# CHAP. XI.

## *Of Fœtus's form'd out of the Womb.*

IF the Egg is too big, or if the Diameter of the *Tuba Fallopiana* is too ſmall, the Egg ſtops, and can get no farther, but ſhoots forth, and takes root there; and having the ſame Communication with the Blood-Veſſels of the *Tuba*, that it would have had with *thoſe* of the Womb, had it fallen into it, is nouriſhed, and grows big to ſuch a degree, that the Membrane of the *Tuba* being capable of no ſuch Dilatation as that of the *Uterus*, breaks at laſt, and the *Fœtus* falls into the Cavity of the *Abdomen*; where it ſometimes lies dead for many Years, and at other times occaſions the death of the Mother, by breaking open its Priſon.

The Inſtances of a big Belly for twenty-five Years in a Woman of *Tholouſe*; that of twenty-three Years, of a Woman of *Pont-a-Mouſſon*; and of ſeveral others, which I have related in a Diſcourſe of Generation, ſet down in my *Anatomy of human Body*, make very much for the proof of what I now advance. I have likewiſe had an Account from *Breſt*, ſome Years ago, of a big Belly, in which it was found, that the *Fœtus* had been form'd in the *Tuba*. And tho I have not publiſh'd this Account yet, it lets us ſee, that it is moſt certain that Infants are form'd in the *Tubæ*, as well as in the Womb.

However true theſe Caſes and Facts are, *Mauriceau* would never accept of them, becauſe they contradicted his *Theory* and Doctrine of *Genera-*

Book I. *tion.* He was confident, that it was accompliſh'd by the mixture of the two Seeds, which being Liquors, could not ſtop in the *Tuba*, but eaſily run out at either of the Extremities; and that the Womb only is fit to receive and contain them, and be the Place of Generation. But had he allow'd of Eggs, he would eaſily have granted, that the *Fœtus* may be form'd, and ſtop in the *Tubæ*, as you ſee it in this Figure, which repreſents one form'd in the *Tuba* of a Woman with Child, who died in the *Hotel-Dieu* at *Paris*. The Hiſtory that he relates of a Woman that died in the *Rue de la Tannerie*, whoſe Womb he took care to get engraven, proves the very thing he ſtrains ſo hard to call in queſtion. He maintains, that the Child was form'd in the Womb, and not in the *Tuba*: his Reaſon or Proof is, becauſe the *Ligamentum Rotundum*, and the Horn of the Womb on that ſide, were ſeparated from it, and it was extended like a *Hernia*, or Rupture, in a Bag that contain'd the *Fœtus*; which being burſt, at the end of three Months the Mother died convuls'd, and in terrible Pain. It would have puzzled *Mauriceau* to have explain'd how the Seed mix'd, as he ſuppoſes it, with that of the Woman, could enter into the Womb, lodge there, and be the Matter of the *Fœtus*: wherefore he ſays nothing of it. But 'tis eaſy to conceive, that the Egg ſtops at the extremity of the *Tuba*, which opens into the Womb; for that being the narroweſt part, 'tis no wonder it ſhould ſtop more readily there, than any where elſe. They who have conſider'd this Caſe, are all of opinion, that this *Fœtus* was form'd in that extremity of the *Tuba* which terminates in the *Uterus*, and therefore are perſuaded of the truth of what we have advanc'd about the *Ova*. *Graef* hath likewiſe aſſerted this, in his Book of the Parts

Parts of Generation in Women. But *Mauriceau* could never be prevail'd upon to be of this Opinion. Ch. 12.

We now proceed to the Conſideration of ſuch Eggs as get ſafely into the Womb, and contain all the Particles neceſſary for the Formation of a human Body, and were impregnated before by the Male Seed.

## CHAP. XII.

### *How the* Fœtus *is nouriſhed.*

THE Egg being receiv'd into the Womb, and embrac'd by it, begins to ſhoot forth ſome ſmall Filaments, like ſo many Roots, which creep between the Fibres of the Subſtance of the Womb, from which they receive Blood, and carry it to the Egg, for its Nouriſhment, Growth, and the Expanſion of its Parts: wherefore it is fitly compar'd to a Grain of Corn ſown in good Ground, that caſts forth Roots which bring to it Sap for the Nouriſhment of the Plant that it contains.

Out of theſe Filaments, and the Blood which they bring from the Womb, there is form'd a round Body, like to a little Cake, call'd the *Placenta*, which not only ties the Egg to the bottom of the Womb, but likewiſe maintains the Circulation of the Blood of the Mother with the Infant, and of the Infant with the Mother; carrying *that* of the Mother to the Infant, and bringing back to her what is more than ſerves for his Nouriſhment.

The *Placenta* is furnish'd with Blood from the Arteries of the Mother, which having pass'd thro its Substance, runs into the Branches of the Umbilical Vein, that carries it, by the Navel-String, to the *Fœtus*; then it is thrust through the right Ventricle of the Heart, and from that by the *Foramen Botalli* thro the left, finding no passage thro the Lungs, because the *Fœtus* hath not the benefit of Inspiration. A part of this arterial Blood returns from the *Fœtus* to the *Placenta*, by the two *Iliack* Arteries; and running thro it, enters the Mouths of the Veins of the Womb, and is carry'd to the *Vena Cava*, and thence to the Heart, with the maternal Blood. Thus we see that the Circulation betwixt the Mother and the *Fœtus* is maintain'd by the means of *Arteries* and *Veins* belonging to both, which run thro the *Placenta*.

The superior part of the *Placenta* is fastned to the Womb, and the inferior to the Membrane of the Egg: they are one Body while the *Fœtus* is in the Womb. From the middle of the *Placenta*, there comes a small String, that is inserted at the end into the little Sperm in the middle of the Egg, which is the first Principle and *Stamen* of Man, and is no bigger than a Grain of Millet, but grows in proportion to the quantity of Blood brought to it: after that, the several Parts of the Body insensibly expand, one after another, and all together form a compleat *Fœtus*.

The Navel-String is fastened to the *Placenta*, at its upper end, and is inserted at the lower into the Navel of the *Fœtus*; and is compos'd of a Vein call'd the *Umbilical*, which carries the Blood of the Mother from the *Placenta* to the *Fœtus*; and of two Arteries call'd *Iliacks*, that come from the Arteries of the *Fœtus*, and run along in the Navel-String, and return the Blood from

from the *Fœtus* to the *Placenta*. These three Vessels are wrapp'd up in a common Cover, which prevents their Breaking as they go from the *Fœtus* to the *Placenta*. Ch. 12.

Some of the Antients thought that the Length of the Umbilical Vessels helps to make the Blood contain'd in them the finer; but the true Reasons of their being so long, are, that the *Fœtus* may move and turn it self in the Womb, and that in Labour it may come before the *Placenta*: For were the Navel-String shorter, the *Placenta* and *Fœtus* wou'd inevitably come away together.

All Authors agree in this, That the Part of the *Fœtus* first form'd is the Membrane that contains the two Seeds: And they maintain that this Membrane is the first Work of Nature; and that it is form'd in the Womb. But we beg leave to differ from them in the second part of their Assertion, and to affirm, That it is form'd in the *Ovarium*, out of which it drops, and descends into the Womb full of that Liquor which it contains.

The Case related by *Hippocrates*, which they make use of to support their Opinion, clearly proves the Truth of ours. They tell us that a Woman having miscarried within six Days after she conceiv'd, the *Abortive* was wrapp'd up in a Membrane like to that of an Egg that has no Shell; and that the two Seeds contain'd in the Membrane were already mix'd, and had a great many red Fibres running through them, that are the *Stamina* of the *Embryo*. Whence they infer, that this Membrane being so thick, must certainly be the Part that is first form'd.

To this it is answer'd, That this Membrane cou'd not be form'd in six Days, and in so short a time contain the two Seeds, and give them the first *Characters* and *Stamp* of a Conception. Besides,

Book I. ſides, had it been form'd in the Womb, it muſt have been of the ſame Shape with it; but being round and little, it is not to be doubted that it came from the *Ovarium*, and was really an Egg; which, after it had lain ſix Days in the Womb, ſlipp'd out of it, and made an *Abortion*. Thus this Caſe, related by *Hippocrates*, and cited by *Mauriceau*, confirms the Opinion of the *Ova*.

If you put a Score of Eggs under a Hen, that ſhe may ſit upon them; and if you break one every Day, you will ſee what Parts are firſt form'd, and have an Opportunity to obſerve the daily Progreſſion. But this is not to be done with Women; for we muſt judge of them by comparing the nine Months they go with eighteen Days, in which time the Chicken comes out of the Shell.

All Naturaliſts are of Opinion that the Heart is the Part that is firſt form'd, and that its Motion gives the firſt Signs of Life. And indeed, if we look through an Egg that's but juſt ſit on, we may ſee a red Point or Speck, taken to be the Heart, in which a great many ſmall Veins terminate, that bring Blood to it, which is afterwards diſtributed and ſpent upon the other Parts for their Expanſion and Nouriſhment.

The Heart no ſooner moves than it communicates Life to all the other Parts of the Body by the Blood brought to it, which it makes fit for Secretion and Nouriſhment as it paſſes through the Ventricles, and diſtributes it all over the Body with the help of the contractile Veſſels. Thus Life begins, is continued, and ends, with the Circulation of the Blood.

Phyſicians are not agreed about the Time when all the Parts of the *Fœtus* are form'd: Some will have thoſe of the Male, others thoſe of the Female, to be finiſh'd firſt. Some again affirm that the Time is the ſame for both. Moſt are of the laſt

last Opinion. And it is fact, that Cockrels and Pullets are hatch'd upon the same Day: And if we ask Women that have had Children, they will tell us that they feel Boys and Girls stir in the Womb about the same time. And if any one has found one Infant move sooner than another, that is owing to the different Strength or Weakness of the Infant, but not to its being form'd sooner or later, as is fancied. Ch. 12.

If we may credit *Kerckringius*, he tells us, in his Treatise of the Generation of a *Fœtus*, That he found in the Womb of a Woman who died suddenly, within four Days after her Terms, a little *Fœtus*, in which every Part was distinguishable from another, tho the Lineaments were but very coarsely drawn. *Hippocrates* says, That all the Parts of the *Fœtus* are form'd and shap'd in seven Days. *Pineau* has left us the Figure of a *Fœtus* of twenty Days perfect in all its Parts. *Mauriceau* preserv'd in Spirit of Wine some *Fœtus's* of twenty five and thirty Days so perfect and finish'd, that the Difference of Sexes was plainly discernible in them.

Hence we infer that the *Fœtus* is form'd sooner than a great many Authors thought, who maintain'd that it is neither perfect, nor has Life, before the Mother feels it stir in the Womb; and that it must have been form'd of an Egg before it came into the Womb: for were it produc'd by the Mixture of both Seeds, it cou'd not be form'd and finish'd in so short a Time.

We now proceed to consider the Time when the Soul enters the *Fœtus*, animates it, and puts the Organs and Parts of this beautiful Machine into Motion.

## CHAP. XIII.

### *When the Soul enters and animates the* Fœtus.

SOME Anatomiſts think that the Soul takes poſſeſſion of the *Fœtus*, and begins to animate it, thirty Days after a Woman conceives; others forty, and ſome two or three Months thereafter. But according to the Principles that we have laid down, it muſt be ſo ſoon as the Heart and Veſſels are capable of circulating the Blood: For in vain wou'd Nature have made the Body, which is compos'd of ſo many Organs and Parts, if the Soul did not enter it, to give it Life and Motion.

But the Soul moves the Body, directs all its Functions, and like a Sovereign is ſeated in the Brain; whence, as from a Throne, by the Intervention and Help of the Nerves, it ſends forth its Orders to all Parts, and they are readily obey'd. In a word, it preſerves and upholds the Body ſo long as it continues in it; and when it leaves it, it quickly goes to wrack, and moulders to Duſt.

But what is the Soul? They who are much more learned than I pretend to be, have not ſaid any thing pertinently about it; wherefore I will content my ſelf with the Recital of ſome of their Opinions and Conjectures. Some think that all Souls were created at firſt; and that ſo ſoon as a Body is fit to receive one, it enters and animates it. Others fancy that Souls are created as Bodies are, form'd and furniſh'd with Organs. Others, that it is the Harmony and Agreement of the four Elementary Qualities, which actuate Matter.

Matter. Others, that it is the ſpirituous and moſt ſubtile Part of the Seed, that moves the Parts. Others again, that it is the Breath of the Creator, or firſt Cauſe, who puts all ſecond ones into motion. But all theſe various Opinions ſerve only to puzzle us: 'Tis by Faith alone that we underſtand that the Soul is an inviſible and immortal Subſtance, animating the Body, and which being a Spark of the Divinity, muſt ſubſiſt for ever. Ch. 14.

## CHAP. XIV.

### *Of the Membranes of the* Fœtus.

THE Membrane that covers the *Fœtus* whilſt in the Mother's Belly, is the ſame with that which contain'd the Liquor of the *Ovum* before the Conception; and tho' it was then very thin, like a Cob-web, it grows thick as the *Fœtus* grows bigger, and in the laſt Months of Geſtation is ſo ſtrong, that the *Fœtus* cannot break it with all its Strugglings. This Membrane, which appear'd to be ſingle when it inveſted the Egg, divides eaſily in two after Delivery. The External is call'd the *Chorion*; and the Internal the *Amnios*.

The *Chorion* is ſtrong, hard, and thick, a little rough and uneven on its Outſide, that touches the Womb. Its Inſide is ſmoother, and is ſo join'd to the *Amnios*, that they ſeem to be but one. Some think that it adheres every where to the Womb; but they are miſtaken, for it touches it only where the *Placenta* does, that grows upon its Outſide.

It

Book I. It was *Mauriceau*'s Opinion, that the *Chorion* adheres to the Womb; but the four following Reasons prove the contrary: First, When the Woman begins to be in Labour, this Membrane hangs without, and is drawn out in length like a great Pudding-Bag, full of Water, and afterwards bursts, to make way for the Child; but this Extension cou'd not take place, if the *Chorion* were fastned to the Womb. Secondly, Did this Membrane adhere to the Womb, the Child could not come into the World with a great part of the *Chorion* wrapp'd about its Head, as sometimes it does. Thirdly, When we deliver a Woman with Child, we find no Adhesion of this Membrane, but of the *Placenta* only, to the Womb. Lastly, Several Women, while they are big, pass Waters that gather betwixt the *Chorion* and the *Uterus*; which cou'd not be, did these Parts adhere to one another, as *Mauriceau* fancied. The second Membrane is called the *Amnios:* It lines the *Chorion*, and is so thin, that it is transparent. Its Outside, next to the *Chorion*, is somewhat uneven; but its Inside, next to the Child, or *Fœtus*, which it immediately invests, is very smooth. It is separated from the *Placenta* by the *Chorion*, to which it adheres so, that it is not easy to part them; and indeed, tho we take them to be one Membrane only, we shall not be mistaken.

These Membranes may be fitly compared to a Foot-Ball, that has its Outside much thicker than the Inside; or rather, to the two Membranes that contain the Brain: For we see that the *Dura Mater* is thicker than the *Pia*, which holds the same Place with respect to it, that the *Amnios* does to the *Chorion*; but with this Difference, That the Membranes of the Brain are separate one from the other; but those of the *Fœtus* adhere

adhere so closely, that the most skilful Anatomists have much a-do to part them. Ch. 14.

These Membranes serve, First, To contain all the Particles and Parts proper to make a *Fœtus*. Secondly, To bring these Particles from the *Ovarium* through the *Tuba Fallopiana* safely into the Womb. Thirdly, To cover the *Fœtus* while it is there. And Fourthly, To contain the Water in which the *Fœtus* swims, to the moment that it escapes out of Prison.

Gossipping Women are persuaded that the Children which come into the World with a part of this Membrane covering their Head, are more fortunate than others; they say that they are born wrapp'd up in their Mother's Smock: But this Circumstance is purely natural, and contributes nothing towards the making some more lucky than others. *Mauriceau* observes, that it attends quick and easy Deliveries, and such Women as drop their Children, and bring them forth with the greatest Ease; for then the Child is not oblig'd by Strugglings to break the Membrane, but brings it off wreath'd about its Head, almost whole; which it could not do, were the Passage straiter. Hence *Mauriceau* concludes, that such a Delivery is equally happy for Mother and Child.

CHAP.

## CHAP. XV.

### *Of the Waters in which the* Fœtus *ſwims.*

IT is certain that the Membranes deſcrib'd contain a ſerous Liquor, in which the *Fœtus* floats: But the antient Anatomiſts neither agree about the Nature of it, nor the Manner of its coming thither.

Moſt Authors take this Water to be the Urine of the *Fœtus*, becauſe of its ſaltiſh Taſte; but that is no ſufficient Reaſon, ſeeing Tears, and ſeveral other Seroſities, have a ſalt Taſte, which yet are not Urine. Theſe Waters are brackiſh, that they may not ſpoil nor ſtink while the *Fœtus* is in the Womb. They are likewiſe a ſort of Brine or Pickle in which it is preſerv'd; for we ſee that dead Children lie very long in the Womb without ſpoiling.

Urine ferments in a Chamber-Pot after ſome time, and ſmells very ſtrong; and if it ſtays longer in the Bladder than it ought to do, even there turns high-colour'd, ſharp, and has an intolerable *Fœtor:* What muſt it then be, were it detain'd and kept the ſpace of nine Months in theſe Membranes? Wou'd it not very much incommode and kill the Child? Beſides, we are ſenſible that in Labours this Water is clear and pure, has no bad ſmell; and therefore is not Urine.

Did the *Fœtus* urine all the while it is in the Womb, above a Bucket-full of Urine muſt be gathered; but ſeeing the Blood that it receives for its Nouriſhment is purg'd both from all groſs and ſerous Excrements, nothing can be voided either by

by the *Anus* or *Urethra*, and consequently these Waters must be a Liquor very different from Urine. Ch. 15.

But the several Explications they give of this Water's flowing into these Membranes, plainly shew that it is not Urine: For some say that it is brought by the *Urachus*; others, by the *Urethra*. But the *Urachus*, which is a Ligament that suspends the Bladder, and has no Cavity, can never receive or carry the Urine, or any other Liquor, to any part. The second Opinion is refuted by those Boys who come into the World having the End of the Glans quite clos'd up; and also by Girls that are imperforated, in whose Membranes the same Quantity of Water is found, tho they could not urine. To this we may add, that in false Big-bellies, and false Conceptions, we meet with as great a quantity of Water, as in true ones. *Mauriceau* took these Waters to be moist Vapours, that sweat and exhale continually through the Pores of the *Fœtus*, and are turned into Water in the Membranes. But he forgets that he has own'd that false Conceptions have these Waters; and consequently his Opinion must fall to the ground, seeing false Conceptions are solid and hard Bodies, and do not perspire. Besides, we find the *Embryo* swimming in Water in the very first Days after Conception, when it is no bigger than Millet-Seed, and uncapable of Perspiration.

This Water, like all other Serosities of the Body, is a Lymph that is separated and filtrated by the Glands of these Membranes, and distils by little and little into their Cavities, after the same manner that the *Serum* in the Heart is filtrated by the Glands of the *Pericardium*, or that *Serum* which we meet with in the Ventricles of the Brain. From the moment the *Embryo* is form'd,

it

it is encompaſs'd with the Water of the Egg; and as the Membranes ſtretch and grow thick, the quantity of Water is ſo increas'd, that in Labour we find ordinarily about a Pint of it.

It is much more probable that this Water is filtrated by the Glands, as all other Liquors are, than that it is owing to the ſweating and perſpiring of the *Fœtus*; for to furniſh the neceſſary quantity, and what is uſually ſhed in *Labour*, the *Fœtus* muſt be ſuppoſed to ſweat continually, which would weaken it prodigiouſly, and effectually mar its growth.

Three Uſes are aſcrib'd to theſe Waters: Firſt, it hinders the Membranes from preſſing upon, or ſtraitning the *Fœtus*, as we ſee the Water of the *Pericardium* prevents the Heart's being incommoded by its Cover, and *that* of the Ventricle of the Brain ſuffers not one Diviſion or Part to depreſs the other. Secondly, it facilitates the *Fœtus's* moving and turning as oft as it has occaſion. Thirdly, it moiſtens and lubricates the *Parts*, and makes them capable of a very great Dilatation in time of Labour; which contributes very much towards the expulſion of the *Fœtus*, and an eaſy and ſafe Delivery.

In Conferences held at Monſieur *Denis*'s Houſe, about forty-five Years ago, it was debated whether or not the *Fœtus* was nouriſh'd by the Blood brought by the Umbilical Vein, or by the Mouth. And ſome learned Men, or at leaſt ſuch as were eſteemed ſo, endeavour'd to prove, That it was by the Mouth. The beſt Reaſon they brought, was, That ſo ſoon as the Child came into the World, and the Breaſt was offer'd to it, that it ſuck'd and ſwallow'd the Milk; which, as they thought, it could not do, if it had not been accuſtom'd to it in the Mother's Womb. They fancy'd, that the Water in which it ſwimm'd,

was

was a milky Liquor that it had taken down, and that nouriſh'd it. The Debate was manag'd in ſeveral Conferences; but at laſt, that Opinion, for want of Proof, was given up: I leave it to the Reader to determine in it as he thinks good. Ch. 16.

## CHAP. XVI.

### *Of the* Placenta, *or After-Birth.*

THE *Placenta*, which moſt Midwives call the After-Birth, becauſe a Woman is not abſolutely deliver'd till it comes away; and ſome the After-Burden, becauſe it comes after the Child is born; is a lump of ſpungy Fleſh, not unlike to the Lungs, or Spleen, interwoven with a vaſt number of Arteries and Veins, which make the far greater part of it.

This lump of Fleſh reſembles a Cake, is flat and round, and as large as a little Plate; its Middle is as thick as two Fingers breadth, but it is thinner in its Circumference: the ſide next to the *Fœtus* is cover'd and lin'd with the *Chorion*, which adheres to it every where; but on its ſide next to the Womb, there are a great many Apertures, by which the Blood, from the Womb, enters it, and is carry'd to the *Fœtus*; and others by which the Blood that returns from the *Fœtus*, is carried back to the Mother.

It is not without Reaſon, that we ſay, the *Placenta* is a Maſs of ſpungy Fleſh; for it is full of Pores, like a Spunge, with this difference only, that thoſe of a Spunge ſuck up any Liquor they meet with, whereas thoſe of the *Placenta* are ſo many Tubes or Canals, that carry the Blood of the

Book I. the Mother to the *Fœtus*, and receive the Superplus, and carry it back to the Mother again.

If we examine the Subſtance of the *Placenta*, we ſhall find a great number of Veſſels ſpread thro it, like thoſe of the *Pulmonary* Arteries and Veins. Theſe Veſſels are of four ſorts, and have different Functions: The firſt are the Arteries of the Mother, which diſcharge into the *Placenta*. The ſecond are Branches of the *Umbilical Vein*, which receive and carry the Blood to the *Fœtus*. The third are Veſſels of the *Iliack* Arteries, that bring back the Overplus of the Blood from the *Fœtus* to the *Placenta*. And the fourth are the Veins of the *Uterus*, which receive this Blood, and throw it into the *Vena Cava* of the Mother, to be made fit for uſe by a further Circulation.

The Structure of the *Placenta* ſhews its uſe, which is, to maintain the Circulation of the Blood betwixt the Mother and the *Fœtus*. I wonder at it, that *Mauriceau* ſhould have ſaid, that the *Placenta* was the Conſervatory of the maternal Blood, in which it was purify'd, before it was convey'd to the *Fœtus*; becauſe, in his opinion, it is an impure *menſtrual* Blood, no way fit to nouriſh it, were it not filtrated and depurated, by paſſing thro the *Placenta*.

But the Mechaniſm of the Part, and daily Obſervations, entirely overthrow this Opinion, and the Principle on which it is built. For were it a Reſervatory of the Blood, there muſt be Cavities to contain it; but being nothing but a Web of Blood-Veſſels and Tubes, it ſerves only to give paſſage to the Blood, which cannot ſtop there, becauſe 'tis propell'd by the ſucceeding Blood, according to the Doctrine of Circulation. Beſides, were the Blood purify'd in the *Placenta*, it muſt have Out-lets or excretory Ducts, to carry off the Impurities ſeparated in it; but it has

none:

one of the Tubæ Fallopianæ
where it had been form'd.



P. 82.

none: and that there's no ſuch Depuration of Blood in the *Placenta*, appears further from this, that the *Fœtus* in the Womb is ſubject to the ſame Diſtempers, that the Mother has: for if ſhe has the Venereal Diſtemper, or the Pox, the Child brings it into the World with it; and if ſhe has the Small-Pox, the Child has them likewiſe. And this is ſo certain, that I have ſeen new-born Children that had all the Marks of 'em: and what *Mauriceau* relates of himſelf, that he was born with a great many Marks, fully proves, that the Blood is not fined or depurated in the *Placenta* before it goes to the *Fœtus*, as he would make us believe. Ch. 17.

## CHAP. XVII.

### *Of the Umbilical Veſſels.*

A String about half an Ell long riſes out of the middle of the *Placenta*, on the ſide next to the *Fœtus*, and is compos'd of three Veſſels call'd *Umbilicals*, which are wrapt up in a ſtrong Membrane, that's a Continuation of the *Chorion*.

Theſe three Veſſels are a Vein and two Arteries, ſeveral ſmall Veins, that come out of the *Placenta*, form the Vein, which runs along in the Membrane to the Navel of the *Fœtus*, and piercing it, paſſes thro the Fiſſure of the Liver to the *Vena Cava* of the *Fœtus*. The two Arteries ariſe from the *Iliack* Arteries of the *Fœtus*, they paſs by its Navel, and run along in the Navel-String, and dividing into ſeveral ſmall Branches, are ſpent upon the *Placenta*.

Some Authors ſay, there are four Veſſels, and probably reckon two Veins: for having found two in Sheep, they ſuppoſed that the *Fœtus* had the ſame number, tho it is certain that there's only one Umbilical Vein. Others added a fifth Tube, to wit, the *Urachus*; by which they fancy'd the *Fœtus* diſcharg'd its Urine into the *Chorion*. But the *Urachus* riſes not from the Navel of the *Fœtus*, and is a mere Ligament faſtened by one end to the Navel, and by the other to the bottom of the Bladder, which it ſuſpends and hinders from falling upon its Neck, that it may contain the greater quantity of Urine.

The Umbilical Vein has no Valves, leſt the Blood that goes to the *Fœtus* ſhould be retarded in its Courſe, to the great prejudice of it. It is much bigger than the Arteries, becauſe a far greater quantity of Blood is carry'd to the *Fœtus* for its Nouriſhment and Growth, than is return'd to the Mother, to be made fit for uſe.

The Membrane that involves the Umbilical Vein and Arteries, and keeps them together, is very ſtrong, that theſe Veſſels, whoſe Coats are but thin, may not break on their way, that is ſo long. Several Knots are plac'd upon the Navel-ſtring, which the good Women take to be Marks of the number of Children that the Mother is ſtill to have. But ſeeing old Women have as many as young ones, and that we meet with as many of 'em on the Navel-String of the laſt Child, as the firſt, it is to be look'd upon as a vulgar Error, to which no reſpect is due; and one would rather think, that they are deſign'd to make the Navel-String ſtronger, and to prevent its being drawn out to too great a length by the motion and ſtrugglings of the *Fœtus*. For my part, I'm perſuaded that they are of the ſame uſe to the Navel-String, that the Innervations of the *Muſculus*

*culus Rectus* are of; that is, to make it act with the greater force. Ch. 7.

It is evident, that by means of the *Placenta*, and the three Umbilical Veſſels, the Blood circulates from the Mother to the *Fœtus*, and from the *Fœtus* to the Mother. But *Mauriceau* limits and narrows this Circulation. The Blood, ſays he, of the Mother, pour'd into the *Placenta*, is receiv'd by the Branches of the Umbilical Vein, and carry'd by it to the *Vena Cava* of the *Fœtus*, whence it paſſes into the right Ventricle of the Heart, and thence by the *Foramen Botalli* into the left, and thereafter is thruſt into the Arteries, which convey it to all the Parts of the Body for their Nouriſhment and Growth: That near the ſame quantity of this Blood returns by the *Iliack* Arteries to the *Placenta*; where being elaborated and purify'd a-new, it enters the *Umbilical Vein*, and is carry'd back to the Heart of the *Fœtus*, by the ſame way; and ſo on continually.

But according to his Opinion, the Blood circulates only from the *Placenta* to the *Fœtus*, and from it to the *Placenta* again; and the ſame Blood runs always in the ſame Channel: and when a part of the maternal Blood once enters the *Placenta*, it never returns into the Veſſels of the Mother; and what is ſpent of it, can only be recruited by the new Blood that the *Fœtus* receives from time to time, from the Mother. Now all this is inconſiſtent with the eſtabliſh'd Doctrine of the Circulation of the Blood betwixt the Mother and the *Fœtus*.

It is certain, that neither the Blood which comes from the Mother to the *Fœtus*, nor that which returns from the *Fœtus* to the *Placenta*, can be purify'd in it; for the Heart only can do this: wherefore the Blood muſt be convey'd to

Book I. it, and by passing thro its Ventricles, as a Furnace, *there* be rectify'd, depurated, and made fit to animate, nourish, and cause the *Fœtus* to grow.

Moreover, did the same Blood circulate betwixt the *Placenta* and the *Fœtus*, the more pure and subtile part of it would be spent upon its Nourishment; and what remains would be so thick, coarse and heavy, that all the force of the Heart of the *Fœtus* would not be sufficient to improve or move it. Besides, were it not for some Particles of Air that we inspire, which mix with our Blood, it would not be of so lively a Colour, nor so frothy and light: but seeing the *Fœtus* respires not, it must be oblig'd to the Mother for that florid and good Blood that it is observ'd to have; and consequently Monsr. *Mauriceau*'s Opinion falls to the ground.

So soon as the Child is born, the *Placenta*, the Navel-String, and the Umbilical Vessels, are of no use: wherefore the Navel-String is tied within two Fingers breadth of the Child's Belly, and cut above the Ligature; what remains of it, separates near the Belly of the Child, and falls off in five or six days. Here is a Knot to be seen as long as one lives, and is call'd the *Navel*.

The parts of the Umbilical Vein and Arteries which are within the Belly of the Child, continue fastned to the Navel, and grow hard, like little Cords, and are of no use afterwards, tho a great many Authors say they are. Some affirm, that the *Umbilical* Vein serves as a Ligament to the Liver, and the two Arteries as a Support to the Bladder. *Mauriceau* embrac'd this old and silly Opinion: but had he thought on't better, he had quickly perceiv'd, that the Umbilical Vein, which is compos'd of one Membrane only, is too weak a Ligament to keep the Liver in its place; and that

that tho it were ſtrong enough, yet it would incommode it, by pulling it towards the Navel, to which it is faſtned. He had alſo found, that the *Umbilical* Arteries, which grow compact and hard, like Strings, can be of no uſe to the Bladder, becauſe they are above two Fingers breadth diſtant from it. From what has been ſaid, we may warrantably conclude, that the Umbilical Veſſels, like the *Foramen Botalli*, and ſome other Parts that were neceſſary for the Child while in the Womb, are of no manner of uſe to it after it comes into the World. Ch. 18.

Hitherto we have treated of the Generation of one Infant only; but ſeeing Women bring often two, and ſometimes three, let us enquire if Twins are the Effect of *Superfetation*, or if they are begat at one and the ſame time.

## CHAP. XVIII.

### *Of* Superfetation.

BY the word *Superfetation*, is underſtood, a ſecond Conception, ſome Days or Months after the firſt. Some think this very poſſible; others ſuſpend their Judgment, not knowing which ſide to take: and ſome again, abſolutely deny that there can be any ſuch thing.

The Abettors of the firſt Opinion endeavour to eſtabliſh it upon ſome Storys in antient Authors: Such as that of a Servant-Maid, who was kiſs'd twice in one day by two different Perſons, and brought two Children, one very like to her Maſter, and the other to his Proxy. And that of *another* Woman who brought forth two Children, one that reſembled her Husband very much,

and the other her Gallant. They build likewiſe upon the Story of a Woman who was deliver'd of a dead Child in the 7th Month, who brought forth two others within two Months thereafter. They ſuppoſe, that if a Woman brings forth two Children, one big and ſtrong, and the other little and weak, there is a *Superfetation*: fancying, that the big one was firſt conceiv'd, and the little one ſome Months thereafter. But theſe Stories and Caſes are eaſily refuted, and in no ſort prove, that there's any ſuch thing as *Superfetation.*

*Mauriceau* and others, neither appear for nor againſt *Superfetation*: and I muſt own, that he does well in this; for he cannot ſhew, how Generation, which he ſuppoſes to be the effect of the mixture of the two Seeds, can ever take place: for 'tis evident, that if the Womb open'd to receive a ſecond Seed, the firſt would run out. But tho the two Seeds thrown into the Womb at different times, were allow'd to be entertain'd there, yet how can we conceive that they do not mix, or that they keep ſeparate from one another, that two *Fœtus's* may be produc'd out of 'em? *Mauriceau* being ſenſible of theſe Difficulties, admits not of a *Superfetation*, but after the ſeventh day; when, according to *Hippocrates*, the firſt Seeds are wrapt up in a Membrane, like that of the Woman who miſcarry'd on the ſixth day after ſhe conceiv'd. However, tho he ſtrains very hard to ſhew the poſſibility of this; yet 'tis certain that he doubted of it: for he ſays, That 'tis as difficult to explain it, as the Flux and Reflux of the Sea.

But notwithſtanding all the Objections and Proofs brought againſt a ſecond Conception, *Mauriceau* anſwers, That there are no general Rules without Exceptions; and that tho the Womb

Womb is exactly shut, it may open a little to let out some viscous Serosities; and that if the Woman happens at that time to be heated, and earnestly longs for the *Enjoyment*, and finds the Opportunity, she may discharge by the Conduit that terminates in the bottom of the Womb; and that if the Man emits at the same instant, a Woman may conceive a second time. But seeing the Principle upon which he grounds these Reasonings, is false, all the Consequences must be inconclusive. Ch. 18.

We own, however, *Superfetation* in Doe-Rabbets, She-Cats, Bitches, Sows, and all Animals that have the Womb divided into distinct Cells, because a Conception or *Fœtus* may be plac'd in each of these Cavities at different times; but in Women, whose Womb is but one Cavity only, it cannot be, because the first Conception which fills this Space, necessarily excludes a second.

The *Ovarists*, whose Opinion is perfectly inconsistent with that of *Superfetation*, prove unanswerably, That Twins are begat at the same time, and that two Eggs are impregnated at the same instant, and fall into the Womb, that has two *Tubæ*, which carry each the more subtile and fecundating Particles of the Seed to its *Ovarium*: and that tho one of 'em is lustier and stronger than the other, yet it does not therefore follow that they were not form'd at the same time; for we see that the same Mother does not always bring Children of the same bigness, and that if she has but six, they frequently differ from one another in Looks, Stature, and Shape.

But an infallible Proof of the *Fœtus*'s being *ab Ovo*, and that it derives its Membrane from the *Ovarium*, is this, That Twins have each a separate Membrane; whereas did Generation proceed from the Mixture of the two Seeds, when the

Man has furniſh'd on his part a ſufficient Quantity for two *Fœtus's*, and the Woman likewiſe on hers, the Womb muſt be ſuppos'd to divide both Seeds into two Parts, and afterwards mix them, and form two ſeparate Membranes to wrap them up in: which I confeſs I cannot comprehend, tho I readily conceive how two Eggs fall down into the Womb, and there receive Nouriſhment and Growth, as if there were but one only.

*Mauriceau* concludes this Chapter with an Advice to Women, ſhewing them how they may avoid *Superfetation*; which is, to abſtain from the Embraces of their Husbands during the firſt Months of *Conception*. But ſeeing he lays down a Rule ſo very hard to be obſerv'd, 'tis plain and undeniable that he believ'd that a ſecond Conception was poſſible, and that it was their Duty to renounce the greateſt Pleaſure for a time in prevention of it. But tho there's never a Woman that follows his Counſel, yet we are not like to meet with a *Superfetation*.

The *Ovariſts* having denied the Function aſſigned the ejaculatory Veſſels, are ask'd where the Seat of Pleaſure in Women is? To which 'tis anſwered, That it is not to be wonder'd at that the *Ovariſts* do not allow the ejaculatory Veſſels to be the Seat of that Pleaſure which Women receive in the Act of Generation, ſince they deny that there are any ſuch Veſſels. They indeed who maintain the Mixture of both Seeds, and fancy that the Liquor which they obſerve in the *Ovarium* (which they call the Teſticles) falls into the Womb, ſuppoſe that there are four ejaculatory Veſſels; two of which go to the Bottom of the Womb, and two to the Neck. Upon this Suppoſition they pretend to reaſon at a great rate, but to very little purpoſe; for theſe Veſſels

Veſſels are not to be found in human Bodies. Neither can the *Tubæ Fallopianæ*, which convey the *Ova* to the Womb, be the Seat of Pleaſure; nor muſt we expect to find it deep in the Womb, but in the Entry of the *Vagina* in the *Clitoris*. Ch. 18.

For it is not to be thought that an Organ, compos'd of ſo many different Parts, and ſo very like to *thoſe* of the *Penis*, is made in vain. It has its *Glans*, *Præputium*, *Corpora Cavernoſa*, Muſcles, Glands, and *ejaculatory* Veſſels, for no other reaſon ſurely but to give the ſame Pleaſure to the Woman, that the *Penis* gives to Man. For as the *Penis* by Friction is ſo tickled that Emiſſion follows immediately upon it, ſo the *Clitoris*, no leſs ſenſible of Pleaſure upon the like occaſion, ejaculates a Liquor ſeparated by the Glands that are round about it, which gives as great and exquiſite a Senſe of Pleaſure to the Woman as Men have.

This Liquor however comes not out of the *Glans* of the *Clitoris*, which is imperforated, but out of a great many Pores upon its Circumference, call'd *Lacunæ*; and in amorous and laſcivious Women ſometimes it runs out of the *Labia*, and wets the *Pudendum* of the Man very much: and ſome Women are ſo very luſtful, that they emit of this Seroſity ſeveral times, even before the Man ejaculates.

All ingenuous Women own that the *Clitoris* is a moſt ſenſible Part; and that if it is but ſlightly touch'd with one's Finger, it moves their Paſſion prodigiouſly: nay, ſome are ſo tranſported with the Pleaſure they have this way, that they abuſe themſelves. Wherefore ſome Authors have called this Part *The Contempt of Men*.

But what has been ſaid muſt not be apply'd to all Women; for there are ſome naturally very amorous, who controul their Paſſion, and give Inſtances

Inſtances of the greateſt Virtue. Others there are who are ſo indolent, that there's not the leaſt Merit in their being virtuous. And I have met with ſome who declar'd that they had no Notion of that Pleaſure, for which others hazard daily ſo much; and aſſur'd me likewiſe, that they had been got with Child without being ſenſible of Pleaſure in the leaſt.

I hope that I have fully proved that Man is *ab Ovo*, as all other animal Productions are. This *Egg* being receiv'd into the Womb, ſends forth its Roots, by which the *Embryo* has its Nouriſhment brought to it. Out of the firſt of theſe Roots, or *Stamina*, the *Placenta* is form'd, and is faſten'd to the Bottom of the Womb. The Membrane of the Egg lines the *Placenta* on the Side next to the *Fœtus*; the *Umbilical* Veſſels go from the *Placenta* to the Centre of the *Embryo*, in the middle of the Egg, where they are inſerted. The *Embryo*, that at firſt is very ſmall, grows bigger and bigger by the Nouriſhment it receives; ſo that at the end of nine Months, which is the Term appointed by the Author of Nature for its Excluſion, a Child that ordinarily weighs ten or twelve Pounds is ſafely brought into the World.

But ſeeing a great many Ailments uſually attend a Woman all the while ſhe is with Child, ſome of which are the neceſſary Conſequences of a Big-belly, and others accidental, or the Effects of ſome unforeſeen Diſaſters or Miſchances; and that in theſe Circumſtances the Surgeon muſt be applied to for Remedy, and the friendly Aſſiſtance of his Hand: for the Inſtruction of ſuch of 'em as are young, we ſhall in the following Book treat particularly of theſe Symptoms and Complaints.

*The End of the Firſt Book.*

A

# General Treatiſe

OF

# MIDWIFERY.

## BOOK II.

### *How a Woman with Child ought to be governed.*

THE beſt Method for inſtructing the young Surgeon in every thing that relates to Midwifery, is that which I obſerv'd in the Courſe of Chirurgical Opreations, which I have made publick. For ſeeing a Woman's Delivery is an Operation of Surgery, I can't do better than propoſe to

Book II. to such as design to practise Midwifery; 1. How they are to order and govern Women with Child till their Reckoning is up. 2. What they are to do for them when they are in Labour, whether natural, unnatural, or difficult. 3. How they are to order and manage them after Delivery. I have divided these three Periods into three Classes, which in fifty eight Chapters contain all Instructions and Directions that are necessary for giving Women proper and full Assistance, whatever Circumstances they are in.

## CHAP. I.

### *Of a True and False Big-Belly.*

A Big-Belly in Women is a rising and swelling of it, by reason of a *Fœtus* form'd in the Womb. A Big-Belly, in the proper Sense of it, is here understood; for the Belly may swell from other Causes. The Signs of Pregnancy are the same with those of a Conception; but as a Woman grows bigger, other Signs appear, which put it out of doubt. Such are Increase of Pain, a Swelling of the Breasts, Aversion to such Meats as a Woman is accustomed to eat, and likes; a deprav'd Appetite for such as she is usually averse to; a total Suppression of the Courses, without any manifest Cause; her Belly growing bigger and bigger towards the Region of the Womb; but especially her feeling the Child stir within her, which is by far the surest Sign of all these.

There are two Sorts of Big-Bellies: One true, when a living Child fills and distends the Womb; the

the other false, when extraneous Bodies are engendred and form'd in it. 

These extraneous Bodies are sometimes Water, which occasions a *Dropsy* in the Womb; sometimes Wind, which passing imperceptibly or suddenly with Noise, makes the Bigness disappear; at other times a false Conception, a Mole or Lump of Flesh: And lastly, a great many Vesicles full of Water, like to a Cluster of Grapes.

When a Woman is with Child, her Belly keeps up, is prominent, and rais'd; the Navel struts out, and spreads; the internal Orifice of the Womb is moist, soft, and supple; and her Breasts are full of Milk, which is the surest Sign of a true Conception.

When there's a false Conception, the Belly is alike big every where: If a Woman lies upon one Side, she feels a Weight on it as if a heavy Ball were within. Her Navel is sunk, the Mouth of the Womb is hard and little: She has no Milk in her Breasts, but a *Serum* only, which proceeds from a Suppression of the *Menses*. And tho she has been big for several Months, yet she feels nothing stir in her Womb.

It is of the last consequence to the Surgeon to distinguish betwixt a true and false Big-Belly: For in the first he must do his utmost to make the Woman retain the Child to the full Time, and till she is safely delivered of it. And in the second, he must omit nothing that can procure the Expulsion of these extraneous Bodies as soon as possible, that the Womb may neither be incommoded, nor suffer by them. And therefore he must weigh every Circumstance before he gives the Prognostick, or acts any Part: For must he not expect to be censur'd and blam'd, if a Woman brings forth after he has given it as his Opinion that she was not with Child? Or if after he has pronounc'd her

Book II. her to be with Child, and her Reckoning is up, and more, she shou'd bring forth a *Mole*? Or if it shou'd appear that there was nothing but Water or Wind in the Case, as it frequently happens; has he reason to hope that he will be excus'd, by saying that he did not expect to find it so? He must therefore leave it to Time to decide the Matter, when the Signs are doubtful; and rather suspend his Judgment than hazard his Reputation.

*Mauriceau* instances several Women who took themselves to be with Child for whole Years together, and still expected to bring forth. And I have met with some who cou'd not be put out of that Conceit, but took Wind which they felt in their Bellies for the stirring of a Child. I have likewise seen a great many Suits of rich Childbed Clothes made by Women who earnestly long'd for Children, and therefore would not suffer any body to tell them they were not with Child; but at last all vanished into Smoke.

Women are most subject to these false Big-Bellies from the thirty fifth to the fortieth Year of their Age, because they then begin to have their *Courses* irregularly; and either the too great Quantity or the Badness of the Blood evacuated this way, is the Reason of this Disorder: and if the Surgeon will take the Trouble to put the proper Questions, he will readily find that the Irregularity of the *Menses* is the principal Cause of it. I have likewise had Opportunities to observe that almost all those Women who fancied themselves to be with Child, but were really not so, were about the Age now mentioned.

We usually comfort a Woman that hath had a false Big-Belly with the Hopes of having a true one next, by telling her that tho the Womb miss'd it this time, it will do its Office better another, as we frequently see it does.

But

But we return to the Consideration of *true* Big-Bellies; and that we may make the surer Judgment of them, and bring them to the full Time, we must explain their Beginning and Progress. Chap. 1.

A Woman who lives with her Husband, and has not her Terms, is thought to be with Child from the Time she had them last, because it frequently falls out so. This, however, is not absolutely certain, seeing some Women with Child have *those* in greater or smaller Quantities, as they are of a Complexion more or less sanguine.

But tho this makes it more difficult for the Surgeon to determine and pronounce upon the precise Time of Conception, yet if he understands his Business well, he will hardly be mistaken; for he knows that if a Woman has not her *Courses* while she's with Child, it is because the Blood-Vessels in the Bottom of the Womb are shut up, and that the Blood flows from the Vessels of the *Vagina*: He observes likewise, that the Evacuation being less than usual, doth not hinder, nor in the least affect the Conception; and therefore concludes the Woman to be with Child from the Day after she had her Courses.

The Surgeon is sometimes oblig'd to make a Report about Women who miscarry upon ill usage soon after Conception, or about Maids who take things to cause an Abortion: and the Judges, that they may proportion the Punishment to the greatness of the Crime, never fail to require of them, to tell, whether the *Fœtus* has ever had Life, or not. The Judges do well to inform themselves; but 'tis no easy matter to give a satisfactory Answer to this Question. It is certain, that an immortal Soul brings Life into the Body that moment it enters it, and that it animates it so long as it abides with it; but the main difficulty is, whether the Soul waits till all the

Book II. the Organs of the Body are form'd and fit to receive it, before it takes possession of it, or if it enters it with the Seed, and builds a House for itself.

The greatest Philosophers have not deliver'd any thing that can be rely'd upon about the Nature and Existence of the Soul, or the Time when it enters, or how it animates the Body. We are entirely satisfy'd with what the *Scriptures* teach us; and shall only observe this, That whoever beats or hurts his Neighbour, but especially a Woman with Child, so as she miscarries, deserves to be severely punish'd; and that those Maids who use Means to procure an Abortion, are guilty of a very great Crime, and that the difference of Time does not alter the nature of it: for whether the Soul has actually taken possession of the Body, or is only preparing to enter it, a *Being* which would have been made compleat and perfect, is destroy'd and murder'd.

To understand the different Times of *Gestation*, or how far a Woman is gone with Child, aright, we must carefully attend to the account she gives of herself, and of the Circumstances she was in when with Child before: if her Courses stopt immediately upon her conceiving, if her Belly is big, and if she can tell when she first felt the *Fœtus* stir, you may make a sure Judgment about the Time she has to go.

In the sixth or seventh Month, big-belly'd Women are sometimes seiz'd with such Pains as they have in Labour, which are by no means to be encourag'd or provok'd, lest we kill the Child, and endanger the Life of the Mother; but on the contrary, Rest, and such things as mitigate and remove Pain, are instantly to be prescrib'd: and the Patient is to be treated thus till her full Reckoning is up. However, if in spite

of

of all that can be done, these Pains increase: which was the Case of the Dutchess of *Maine*, who brought forth her first Child in the middle of the seventh Month; and the Dutchess of *Berry*, who within three days after she came to *Fontainbleau*, had the same Misfortune. They must be treated as if they had gone nine Months; and greater Care must be taken of 'em than if they had come to the full Time. Chap. I.

So soon as the Surgeon lays his Hand upon a Woman, whose Pains come before the Term, he is to judge whether she must be deliver'd, or not: for if the Mouth of the Womb is shut, and turn'd upward, nothing is to be attempted; but if it begins to open, and dilates by little and little, and if he feels the Child push against it, he may depend upon it that these are Labour-Pains.

An expert Man-Midwife can tell the Time, and the very Day that a Woman will bring forth, by touching the internal Orifice of the Womb: for whereas in the time of Pregnancy, it is thick, it begins to stretch and grow flat towards the last Months; and it becomes thinner and thinner, and in the last Days is like the other parts of the Womb, and is not distinguishable, but by its Circumference, which makes what is call'd the *crowning* of the Child, when it pushes and strikes against this Part, in order to be deliver'd, and get out of Prison. This is the first Lesson that those who study Midwifery are taught; and I am acquainted with a young Surgeon who was in the *Hotel-Dieu* at *Paris*, for Instruction, and laid hands in one Afternoon upon thirty five Women, all got with Child at different Times, to whom the principal Midwife declar'd the precise Time and Order of their bringing forth so very justly, that she did not mistake in any one of them, as my Friend assur'd me, who

Book II. was at pains to make the Observation for his own Satisfaction and Improvement.

## CHAP. II.

### *Of the Signs by which we may know whether a Woman is with Child of a Boy or Girl.*

A Great many married Women are anxious to know not only that they are with Child, but also whether it is a Boy or a Girl. The Husband is often no less curious than the Wife; and both are so very inquisitive, that the Surgeon is often forc'd to give them an Answer, tho he is very sensible that there are no clear or certain Signs of it.

But if he must say something, first of all let him tell them this. Next, let him cite two Passages of *Hippocrates:* One, That when a Woman is with Child of a Boy, she looks fresh and healthful; but that her Countenance is pale and sickly, when she's with Child of a Girl. The other, That the Males lie on the right side, and the Females on the left. Then let him lay before them the Observations which the good Women and common People think they have so judiciously made upon this Head: Such as these, That a Woman with Child of a Boy is more brisk and gay; that she has better Health, and a better Appetite; that she feels the Child stir sooner; that her Pulse is stronger and quicker; that her right Breast is bigger than the left; that she has Milk in her Breasts sooner; that when she lays hold of any thing, it is with her right Hand;

Hand; that when she goes abroad, she sets the right Foot foremost. But that if she is with Child of a Daughter, Signs contrary to these are remarkable about her. Chap. 2.

Some fancy that if a Woman conceives when the Moon is in the Increase, she will have a Son; but if in the Decrease, that she will have a Daughter. Others affirm, That when a Woman is brought to bed when the Moon is in the Increase, that the next Child will be a Boy; but if she brings forth in the Decrease, that it will be a Girl. But daily Experience shews the contrary; for as many Boys as Girls, conceiv'd at the same Time, are born on the same Day and Week. The Dutchess of *Beauviliers* is an Instance of this; for she had ten Daughters, one after another, who were conceiv'd and brought forth at different Times; and the Moon made no Alteration in the Case.

The Advice which *Hippocrates* gave to those who desire to have Boys, that they should tie the left Testicle with a Ribband in the Act of Generation, made some fancy that Boys are produc'd out of the Seed of the right Testicle, and Girls out of *that* of the left: supposing that the Blood brought to the right Testicle is the hotter, because it comes from the Trunk of the *Vena Cava*; whereas *that* which goes to the left Testicle comes from the *Emulgent* Vein, and consequently that being more serous, it is more fit to produce Girls. But the Anatomy of human Bodies, and the Circulation of the Blood, teach us that the Blood is brought to both Testicles by the Spermatick Arteries. Besides, the Seed is not brought into the Testicles in the Act, but is filtrated there, and carried Drop by Drop into the *Vesiculæ Seminales*, in which it is laid up, and out of which it is immitted into the Womb.

There are a great many Instances of Men who have one Testicle only, some the right, others the left, who beget Boys and Girls alike. *Mauriceau* produces several Instances of this kind; and so cou'd I, did I incline to swell this Treatise to a large Volume.

We see Women bring forth Twins every day, one a Boy, another a Girl; and it can't be denied that they were conceiv'd the same Moment, born the same Hour, and that the Influences of the Moon were the same, which yet made no Alteration in the Seeds, equally dispos'd to produce a Boy and a Girl. Whence we conclude, that neither the Moon, nor the right or left Testicle, contribute to the Formation of a Boy more than of a Girl, but that this depends entirely upon the Disposition of the seminal Particles of the Eggs, impregnated by the Seed of the Male; and that they who judge otherwise, are prepossess'd with an Error, which all Men of Understanding ought to get rid of as fast as they can.

## CHAP. III.

### *The Signs of a Woman's being big with Twins.*

WOmen with Child are desirous not only to know the Time of their Conception, and whether they will have a Boy or a Girl, but likewise whether they will bring forth one Child only, or Twins, which is terrible to a great many. And indeed I know not how to condemn their Anxiety about this; for they suffer enough in bringing forth one Child, tho they do not begin again, and bring a second immediately, or very soon after, for the most part. One

One would think that Nature had design'd that Woman should bring no more than one Child at a time, since her Womb is but one Cavity; whereas in other Animals, that bring forth several Young-ones at a Litter, there are a great many little Cells, where each is plac'd separately. Women, however, sometimes bring two or three Children at a Birth, and sometimes four, tho very rarely. Chap. 3.

Some Naturalists are so far from wondering at it, that a Woman has Twins, that they maintain it ought always to be so; and that seeing she has two Breasts to give suck with, she ought to have a Child for each. But others answer, that Children are not form'd in the Breasts, which were only design'd to furnish Milk for their Nourishment; and that if there were but one, and any of these Accidents to which it is so very subject should happen, tho she had but one Child to suckle, yet it might die for want of Nourishment; and that therefore she has two Breasts, that one may supply the Defect of the other upon every occasion.

Superfetation, and the Mixture of the two Seeds, have been both refuted; wherefore it remains that a Woman has just so many Children at a Birth, as there are Eggs that fall down at once from the *Ovaria* into the Womb. When you shake a Tree to make a Pear fall, if you do it with great Force, two or three will fall instead of one: In like manner, if a Man exerts himself very much with a Woman, two or three Eggs, instead of one, come down from the *Ovaria*, especially if the Woman is fruitful, and is as much transported with the Pleasure as the Man.

Women bring forth Twins every Day, and some three Children now and then. I knew a young Woman, that lodg'd where I did, in the *Rue St. Honoré*, who brought forth three Boys the

Book II. first time she lay in. I was likewise acquainted with the Wife of an Apothecary at *Befort*, at whose House I lodg'd when I attended the Duke of *Burgundy* that Year he took *Brisac*, who had lain in of three Sons two Months before. Madam *Arnoton*, the Wife of a Master of Requests, who liv'd in the *Rue de Richlieu*, brought forth three Girls eight or ten Months ago. Her Husband was at play in some Neighbour's House, when a Footman came to tell him his Lady was brought to-bed of a Daughter; he came back within a quarter of an Hour, and told him she had a second; and a quarter of an Hour after that, again brought him the News of a third. Whereupon he got up in great haste, and begg'd of the Ladies with whom he was at play, to give him leave to go and hinder her from bringing any more at that time. *Mauriceau* gives an account of a Bricklayer's Wife, who was deliver'd of four living Children at a Birth.

I shall not take notice of a great many Instances, in different Authors, of Women who have brought ten, twelve, and fifteen at a time; neither shall I repeat the History of the Countess of *Holland*, who had as many as there are Days in the Year; for these are extraordinary Cases, and such as I shall give no Credit to but upon Revelation: And since it is not my Business to speak of any thing but what is natural, I shall pass over in silence whatever is miraculous. It is impossible to know whether a Woman is with Child of Twins, or not, in the first Months; for there's no Judgment to be made till the Children begin to stir within her. The surest Signs are these following: The Belly is bigger than can be expected, were there only one Child in the case; it rises on each Side, and the Middle is somewhat lower; distinct Motions are remarkable on each Side,

Side, when we lay our Hand upon it, and are more frequent than ordinary; the Belly is round, and rises not in a Point; the Woman is more uneasy than she uses to be; her Burden feels very heavy, and her Legs, the *Labia*, and Thighs, are constantly swelled. Chap. 3.

So long as *Superfetation* was allow'd, when a Woman brought forth Twins, the Child which came last was consider'd as the elder, and had the Preference of Birth-right; which they thought it deserv'd, because they fancied that it was conceived and form'd some Days before the other; which they believ'd came first, because it was next the Door. Those who held the Mixture of Seeds, gave it also in favour of the Child that came last, supposing that that Part of the Seed which was first immitted into the Womb form'd it there before the other, tho it necessarily came into the World last.

But these Opinions having no Foundation, have been exploded long ago, and we give the Preference to the Child that breathes first: For it is undeniable, that Twins are form'd out of two Eggs, brought from the *Ovaria* at the same time; and tho we know not which of them had the start, yet it is certain that they are plac'd a-breast in the Womb, and that each of them receives Nourishment from the same *Placenta*, by their respective Umbilical Vessels; and that being come to the full Time, that which tumbles first, and places it self foremost, comes first, and therefore has an unquestionable Title to all the Privileges of the First-born.

When we plant Apricock and Peach-Stones, some of them produce two Apricocks, or two Peaches, and have each two Kernels with their Pedicles or Stalks, which contain a Tree in little, as all other Grains do. This Observation makes

me think that it may be just so with the *Ova* in Women; and that they may as easily conceive with Twins as one Child only. It puts me likewise in mind of the two Yolks that some Hens Eggs have, which most probably were design'd for the Nourishment of two Chickens. I do not advance this as a certain Truth, but only as a Conjecture which deserves to be consider'd.

The great Resemblance that is ordinarily betwixt Twins, seems to favour my Opinion; for being contain'd in one Egg, *fecundated* by the same Parts of the Male-Seed at the same Instant, it is to be expected they should resemble one another much: and if the *Ideas* with which the Imagination of Husband and Wife are fill'd, give Likeness, since Twins have very much of it, it necessarily follows that they were conceiv'd at the same Instant.

## CHAP. IV.

### *How a Woman with Child ought to be govern'd.*

A Woman that has certain Signs of being with Child must be careful, and do all that she can to bring it to the full Time: She must not put Confidence in her Strength, Youth, or a good Constitution; but on the contrary must look upon a Big-Belly as a Disease, which she ought to have a watchful Eye over. *Mauriceau* has writ a large Chapter upon this Head, shewing after what Manner a Big-bellied Woman is to be govern'd during the Time of Gestation, when it is not accompanied with any considerable Accidents. And in prevention of such as may happen, she lays

lays down a *Regimen* for her so very particularly, that he directs the very Water she is to drink, and the Air that she's to breathe in. Chap. 4.

It is not easy to give a Detail of the Meats that a Woman with Child ought to take: It is sufficient to tell her in general that they ought to be such as give good Nourishment, suit her own Taste, and sit easy on her Stomach; and that she is not to eat Fish, Herbs, Roots, or Fruits; that she's not to fast, but to eat when she's hungry. If she has a deprav'd Appetite for strange and uncommon Things, she must be indulg'd; if she earnestly longs for Meats not so good, nor of easy Digestion, it is a sign that her Stomach is charg'd with an Acid capable to digest them; and tho she shou'd make choice of such while she's with Child, as at other times are improper for her, and use to do her harm, yet she ought to be allow'd them, because she eats not only for her self, but for her Child also. I have known some Women, who all the time they were with Child liv'd upon Sallet, with a great deal of Vinegar, who yet brought very lusty and strong Children.

Most Women with Child use to be blooded when they are four Months and a half gone; and if they think that they have too much Blood, or feel themselves too heavy, they bleed again on the seventh Month; and the third time on the ninth, as near the Time of their Delivery as may be. I approve of their Conduct; but advise such as are of a sanguine Complexion, and have their Courses in abundance, or have receiv'd any Injury when they lay in before, to be blooded eight Days before their Courses come the second time, that is, about seven Weeks after their Conception. Several Reasons may be brought to justify this Practice: I shall only take notice of one,

which

Book II. which is this; That the *Fœtus* being then but small, and not able to consume that Blood which they us'd to discharge monthly, the Superplus of it thus evacuated, prevents its flowing in too great quantity to the Womb, which most frequently causes an Abortion: But when they take care to have themselves blooded after four Months and a half, the Child is grown strong, they feel it stir, and the Danger is over. And therefore I prefer bleeding within two Months, to *that* when a Woman has gone the Half of her Time.

It is not my Opinion that Women with Child should be purged; for I do not find purgative Medicines so very safe: neither is there any other Indication for them, but that of their Vomitings, which proceed not from too great a quantity of Humours, but from the Communication that the Womb has with the Stomach, and therefore are to be remedied by Time only. Besides, we see that vomiting is often of good use to them; and that Women who vomit most when with Child, enjoy better Health than others afterwards. If they are seized with a Fit of a Fever, the *Jesuit's-Bark* will suit them better than purging. In a word, they must not be purg'd but when there's an absolute Necessity for it; and none but gentle Purgatives ought to be prescrib'd for them.

Women with Child are ordinarily costive; but this would not disquiet them, did they consider that they who have the best Constitutions, and enjoy the best Health, go seldomest to stool: But they on the contrary fancy that this occasions Fumes, Vapours, Redness of the Face, and Pimples. I would counsel such to take Veal-Broth, in which Emollient Herbs are boil'd, of a Morning, and some *Bolus's* of clean *Cassia* before Dinner, and after it to eat some stew'd Apples or Prunes. If Glysters are necessary, those of warm

Water

Water are the best; or if compounded ones must be had, Decoctions of *Mallows*, *Marsh-Mallows*, *Violets*, *Succory*, and *Linseed*, without Honey, Butter, or Oil, are the most proper. Chap. 4.

A Woman with Child must not be kept tight in her Clothes; but so soon as she perceives her Breasts and Belly grow big, she must lay aside such as are stiff, or have Whale-bone in them, and wear Bodices and quilted Wastecoats only to preserve her Shape, and keep up her Breasts. Those nice Ladies who will be laced, out of Affectation of shewing a good Shape, not only spoil their Breasts, but likewise their Bellies; which, after they are laid, hang down like a Bag, because the Child is press'd down with its whole Weight, and is thereby not only very much incommoded, but often mishapen. We have very good Reason to condemn the Women in this Age, who go abroad with Slippers so very nice and little, that the Point of their Foot will scarcely enter: If this is a Fault in all Women, it is much more so in those that are with Child, who are more apt to stumble and fall, because the Bigness of their Belly hinders them from seeing where they set down their Feet, being oblig'd to carry their Head and Shoulders backward to ballance the Weight of their Belly. Let them therefore wear low-heel'd Shoes, and not expose themselves to Falls, which very often destroy both Mother and Child.

If violent Passions do Men much harm, they do Women with Child still more; who ought therefore to guard against Anger, Jealousy, Transports, Watchings, and whatever tends to Excess, and keep themselves as easy and quiet as may be: for most Women are not so easily appeas'd when out of Humour, as one would wish. We must likewise take care that no News, whether good

or

Book II. or bad, are told them hastily, lest they be surpriz'd, to the prejudice of both Mother and Child.

Moderate Exercise is very necessary for a Woman with Child, but that which is violent is dangerous. And if there is no extraordinary Reason to the contrary, a Woman ought to use that to which she is most accustomed, of whatever sort it is. *Mauriceau* will have much ado to persuade Women to use less Exercise in the last Months, than in the first; for tho he tells them that the Exercise they use near their Time occasions the Child to turn sooner than it ought, and to present less favourably, yet this makes but little Impression upon them: For daily Experience convinces them, that when they have used the same Exercise to the very time of their Delivery, their Labour is rather easier. They likewise observe, that Women who work hard suffer much less than Ladies do, with all their Care and Nicety.

*Mauriceau* forbids the Wife the Embraces of her Husband the first Days after Conception, for two Reasons which he alledges: One, lest the Seed last emitted should mar it; and the other, lest a *Superfetation* should happen. He likewise prohibits their *Approaches* the two last Months of Gestation; maintaining that the Body is very much heated, and that the Belly is compress'd in the *Act*. But in answer to these three Objections, I say that the first is imaginary; for he fancies that Generation is the result of the Mixture of both Seeds, and that this Mixture may be prevented and disturb'd by a posterior Emission; which cannot be, seeing the internal Orifice of the Womb is exactly shut, as he himself is forc'd to own. The second is false; because there's no such thing as *Superfetation*, much less that it can take place six or seven Days after Conception. The third can never be; for

Husband

Husband and Wife order things so, that there's nothing to be apprehended from his Agitation or Compression of the Belly, by which he supposes so many Women and Children have been ruin'd. I shall only add, that *Mauriceau* had not an Opportunity to make these Observations himself, having never had a Child, tho he was married forty six Years. As for me, my Wife has brought me twenty Children, to the full Time; and I am convinced that Husbands have it not in their power to knock Children on the head, and that therefore they may make love to their Wives as oft as they please. Chap. 5.

## CHAP. V.

### *Of Vomiting in Women with Child.*

HItherto we have only told how a pregnant Woman is to be ordered when no Accidents supervene: And how happy would she be, were she subject to none? But since there are a great many, which almost constantly attend this State, we must endeavour to find out Remedies for them; which we purpose to do under the following Heads.

Loathing and Vomiting are the two Accidents or Symptoms which first discover to us that a Woman is with Child. Loathing is an Inclination to vomit, caus'd by the Agitation of the Stomach; which makes the Woman so sick, faint, and uneasy, that one wou'd think she were going to throw up all that's in it. Vomiting ordinarily follows upon Loathing; and then whatever is in the Stomach is brought up: For the Bottom

of

of the Stomach ascending, and coming near to its superior Orifice, forces its Contents through it into the *OEsophagus*, and thence out at the Mouth.

Vomiting, for the most part, is occasion'd by over-charging the Stomach, or by bad Humours that flow into it: But in Women with Child neither of these are the Causes of it; for they often vomit before they eat, and when the Menstrual Blood, that is not evacuated, has not had time to be changed into noxious Humours. But that they vomit so often, is owing to that Communication that there is betwixt the Stomach and the Womb by the Branches of Nerves, which both receive from the *ninth Pair*; for the Womb has a great many Nerves which give it a most exquisite Sense both of Pleasure and Pain, and likewise a Communication or *Consensus* with most Parts of the Body.

These Vomitings sometimes begin the very first Days of Pregnancy, and continue till the third or fourth Month, which is the time the Child stirs most. *Then* they are not dangerous, because Women vomit with ease, especially when they have Meat in their Stomach; for when they vomit on an empty one, it is much more painful and troublesome; for there's no Danger in vomiting, but in hard straining only.

Some Women vomit almost every day while they are with Child, and yet bring forth very lusty Children; which shews that they do not throw up all that they eat, but they keep enough for the Nourishment of the Child: and tho they seem often to bring up as much, if not more, than they take, it is because some Liquors always mix with it, and encrease the Quantity and Bulk. This Vomiting does Women rather good than harm; for it is remarkable, that they who vomit

all

all the time they are with Child, are more healthful after they have lain in, than those who do not. Chap. 5.

Should a Surgeon endeavour to persuade a Woman with Child, when she is fatigu'd with Vomiting, that it will do her much good, I am to think he wou'd get little Thanks for his pains: On the contrary, he must bemoan and comfort her, and tell her that it will be soon over. He must beg of her to think of some Meat, Sauce, or *Ragoo*, that will give her a fresh Appetite, and stay in her Stomach. She must be allow'd to chuse her Food, and to eat whatever she has a fancy for, on condition that she takes but little at a time, lest she shou'd over-charge her Stomach, and be forc'd to throw all up again. She may eat often, and at all Hours, and must by no means be tied down to Meals.

But if these Vomitings continue after the third and fourth Months, or even till the time of Delivery, notwithstanding all these Precautions, as we see they frequently do, some Authors advise us to have recourse to purgative Medicines. *Mauriceau* prescribes an Infusion of *Sena* and *Rhubarb*, with *Syrup of Succory*; fancying that peccant Humours, which adhere to the inner Coat of the Stomach, occasion these Vomitings.

For my part, I'm of opinion that it is not only of no use, but likewise dangerous to purge pregnant Women upon the account of their frequent Vomitings. I own there are some Distempers in which purging is absolutely necessary, and has good Effects: but a Woman with Child vomits either because of that Communication which the Stomach has with the Womb, in which case Purgatives do mischief; or because of malignant Humours which draw the Stomach into those violent and forcible Contractions; in which case also they

Book II. they are perfectly needless. For it it is absurd to think that these Humours adhere to the Inside of the Stomach; for if they did, they wou'd be very quickly wash'd away by that acid Liquor which is separated continually in the Glands of its Coats: so that these Humours wou'd not only be useless, but hurtful, by irritating the Stomach, which suffers too much already from the Vomiting alone. We may add, That if the Stomach is so apt to throw up Meat that it craves, it is not to be doubted that it will much more readily rise against purgative Medicines, which it is averse to and loaths. Besides, we see pregnant Women bring up all sorts of Medicines every Day, as soon as they have taken them down; wherefore 'tis but reasonable that we shou'd save them the trouble both of taking them, and throwing them up.

## CHAP. VI.

### *Of Pains in the Reins and Groins.*

THERE are four Ligaments that are fastned to the Bottom of the Womb. Two of which are tied to the *Peritonæum*, near to the Reins: They are membranous, and are expanded in form of the Wings of a Bat, and are called the *Ligamenta Lata*. The other two go downwards, and are spent upon the Groins and Thighs, where we lose sight of them: They are of a round Figure, and resemble two Strings, and are called the *Ligamenta Rotunda*.

The antient Anatomists fancied that they had discovered the true Use of these Ligaments, to wit,

wit, That the first hinder'd the Bottom of the Womb from coming forward towards its external Orifice; and that the second prevented its mounting too high, so that it was kept in its proper Situation at all times. Chap. 6.

This Opinion, which hath been handed down to us, is overthrown both by the Discoveries made of the true Structure of these Parts, and Observations made upon Cases and Accidents that happen every day. And in truth, were they fram'd for the Uses which the Antients assign'd 'em, we must own that Nature had committed a Mistake; for the Womb moves upwards and downwards, as if there were no such Ligaments.

The more I examin'd and consider'd these Parts, I was the more astonish'd at it, that the thinking and observing Part of Mankind should have taken them to be Ligaments, or that they had such Uses and Functions as they have ascribed to them; for I'm sure that the Womb wants them not for these purposes: Whither could it move? Is it not as closely join'd to the *Vagina* as a Bottle is to its Neck, from which it cannot be separated except you break it? Why has Nature made these Ligaments? Was it to hinder the Womb from falling lower, and meeting the *Virile* Seed, that it is greedy of? It must be immitted into it, else there can be no such thing as a Conception. Was it to keep it in the *Hypogastrium*, that it might not mount too high? Must it not spread and dilate every way in the *Abdomen* when a Woman is with Child? Was it to command and keep it within Bounds in *Hysterick* Fits, don't we see it move violently and terribly, in spite of these imaginary Ligaments? Shall we suppose that they were design'd to prevent the falling down and over-turning of the Womb? These Accidents are so frequent, that we may

Book II. conclude, on the contrary, that if Nature had made Ligaments for keeping the Womb in the *Hypogastrium*, such Things cou'd never happen.

But as there is no Part of human Body which hath not its proper Use, so the *Ligamenta Lata* are of a threefold Use: 1*st*, To conduct the *Spermatick Arteries* and *Veins*, that pass betwixt the *Ovaria* and the Womb. 2*dly*, To keep the *Ovaria* in their Places, 3*dly*, To sustain and bear up the *Tubæ Fallopianæ*, and enable them to embrace the *Egg* the closer, and carry it to the *Uterus*. The *Ligamenta Rotunda* serve to bring the Womb nearer the *Penis*, in the Act of *Generation*, for the more convenient Reception of the *Seed*; for without this there wou'd be very few Conceptions. But Women pay very dear afterwards for the Convenience and Advantages of these Parts in the *Enjoyment*, and Work of Generation; for when a Woman is with Child, as the Womb grows bigger, it dilates, and is drawn out to a greater length, and then these Parts give them intolerable Pains in the Reins, the Groins, and Thighs.

The Pains of the Reins proceed from the *Ligamenta Lata*, that pull the *Peritonæum*, to which they are fasten'd, very rudely; and those of the Groins and Thighs from the *Ligamenta Rotunda*, which are inserted into these Parts. Some Women are so very much pain'd this way, that they cannot walk without difficulty: Others can scarce be a moment upon their Knees without fainting.

*Mauriceau* says, that the great Extension of the Womb, in the last Months of Pregnancy, is the principal Cause of these Pains; and that they are more severe in the first Child, than those that come afterwards: But we have reason to think that the Womb has no part in this, because it is compos'd of an infinite Number of membranous Fibres,

Fibres, capable of a very great Extension; whereas those Parts which encompass it, have very fine Membranes, that cannot be stretch'd without great Pain. Chap. 7.

Women not only desire to know what will do them harm, but also what will give them Ease and Relief; and who would not do so in their Circumstances? However, it is certain that *Frictions*, *Oils*, and *Balsams*, are of no use here, because they cannot reach or act upon the Parts affected. All that is to be done, is to tell the Patient there's no danger; and that these Complaints are ordinary, and will cease so soon as she is delivered.

A Woman with Child ought to observe narrowly what does her good or harm, and to take her Measures accordingly: If she finds it inconvenient to rise or walk about, she must keep her Bed as much as possible; and so of other things. The late *Dauphiness* kept her Bed the last three Months of her first Pregnancy, because she cou'd not stand upright without very great Pain. And since it is very inconvenient and painful to Women with Child to be upon their Knees, they must not strive, out of a Principle of Devotion, to continue long in that Posture. In the last place, let me observe that Patience is the only Remedy in this Case, as it is in a great many more.

## CHAP. VII.

### *Of Pains in the Breasts.*

ALL Women with Child are subject to Pains in their Breasts, which very often put their being in that Condition out of doubt. These Pains,

however, are so inconsiderable, that a great many do not complain of 'em; and therefore I shall not propose any Remedies for them.

*Mauriceau* having observ'd that Girls have Pains in their Breasts, when the *Menstrua* are either suppress'd, or come very late, concludes that the Pains in the Breasts, which Women with Child have, are occasion'd by that quantity of Blood which is *then* brought into them. But tho we grant that the Pains which young Girls, and some Women, experience a little before they have their Terms, are produc'd by the Blood that endeavours to make its way out of the Body, and sensibly affects the Breasts till it directs its Course towards the Womb, and happily forces its Passage there; yet this is not the Case of Women with Child, who very often have Pains in their Breasts within a few Days after they have conceiv'd, and have had their Courses, and which consequently are not owing to too great a quantity of Blood.

If Women had not Pains in their Breasts for some considerable time after Conception, and the Suppression of their Terms, *Mauriceau* would have reason to assign too much Blood, notwithstanding the Nourishment given to the *Fœtus*, as the Cause of these Pains; but seeing they are felt so soon after Conception and the Menstrual Flux, we must try to find out another.

When an Egg falls out of the *Ovarium* into the *Uterus*, Nature takes care both to form the *Fœtus* out of it, and to provide Sustenance for it, till it comes into the World. The Womb has nine Months to finish it in, during which Time it is nourish'd by the maternal Blood: And so soon as it is born, the Mother's Breasts are furnish'd with Milk for its Nourishment; and in order to this, a milky Liquor begins

gins to flow to them some time before, which filling and distending the Glands, causes Pains that increase gradually in proportion to the Quantity of Liquor that is separated in them. It is this *Serum* that swells the Breasts, and not the Blood, which never runs out of them as this does, but when they are ulcerated. This Liquor stains and rots most Womens Smocks when they are with Child; and when it runs out of their Breasts in great quantities, some are afraid that the Child will be very weak and short-liv'd, because they suppose that it is depriv'd of so much Nourishment. But the just Conclusion is, that they will be good Nurses, and that their Breasts will be easily drawn and suck'd. Chap. 7.

Women never have so fine Breasts as when they are with Child; and even such as have scarce any at another time, make a good Figure then: for as this milky Liquor flows into them, and fills the Glands, it swells, hardens, and prepares them for receiving a greater Quantity of Milk, that they may suckle the Children they bring forth; and tho Women in this Age are not much accustom'd to this, yet are they neither the better Wives nor Mothers for it. External Applications to the Breasts are both useless and dangerous; for were any to be us'd, they must be *Repellents*, which might throw the milky Liquor upon some other Part, and occasion very great Distempers. Let us leave Nature to do her own Work; only if this Liquor exceeds in Quantity, we must endeavour to diminish it by an exact and spare Diet, and by keeping the Belly open with cooling and emollient *Glysters*, the best of which is that of warm Water.

But above all things, we must order the Breasts to be kept from Cold, lest this milky Liquor should coagulate, and an *Abcess* ensue. Big-

bellied Women must therefore keep their Breasts as warm before, as after Lying-in; neither must they lace strait, for Reasons already given, which need not be repeated.

## CHAP. VIII.

### *Of Incontinency and Difficulty of Urine.*

WE shall not here treat of any Diseases of the Bladder, but such as are occasion'd by a big Belly, and require the Surgeon's Skill and Help. One is an Incontinency, and the other a Difficulty of Urine. This last is not so very frequent; a few Women only are afflicted with it, in whom, before they were with Child, the Womb used to fall into the *Vagina:* when these Women are *big*, and have this *Prolapsus*, the Neck of the Bladder is so compress'd and squeez'd betwixt the *Os Pubis* and the *Uterus*, that a drop of Water cannot pass, and a total Suppression of Urine ensues, for which a Remedy must be found as soon as possible.

Neither *Diureticks* nor *Aperients* are proper in this case; the Womb is only to be replac'd. In order to which, the Woman must lie down, and push it softly back with her two Fingers, or a Wax Candle: but after all, if the Suppression of Urine continues, either because it is of long standing, or the Bladder is too full, or because the Spring of its Fibres is much weaken'd, a Catheter must be instantly introduc'd thro the *Urethra* into it, and the business is done.

This Accident happens only in the first Months of Pregnancy; for the Womb grows so big afterwards, that it cannot fall into the *Vagina:*

but

but Women are no sooner rid of this, but another befalls them, which is more and more troublesome the bigger they grow, and in the last Months is very grievous, that is, an Incontinency, or Difficulty of keeping their Water, which disposes them to urine almost every moment. 

Whoever understands the Structure of these Parts, will easily perceive that this Symptom and Complaint is occasion'd by the bigness of the Womb, and the weight of the Child, which compress the Bladder, and forces the Urine out of it.

The only Remedy for this is, that the Woman keep her Bed, and if she can't submit to that, to have Patience, knowing that it will be over as soon as she is deliver'd.

## CHAP. IX.

### *Of Swellings of the Thighs and Legs.*

MOST Women with Child have their Thighs and Legs swell'd, more or less, in proportion to the bigness of the Child; and they who are big with Twins, have greater Swellings than others.

For the Womb being very much distended, compresses by its weight the *Iliac* Veins; by which the refluent Blood stopt, regurgitates in the Thighs and Legs, and makes the Swellings that we now speak of. These Parts are less tumefied of a Morning, when a Woman gets up, than at Night when she lies down; because the Child does not compress the *Iliac* Vessels so much

when she is in Bed, and consequently the Circulation of the Blood is freer.

If the Legs are not very much swell'd, and have not lost their natural Heat, external Applications are needless; but the Woman must use no violent Exercise, neither must she walk much, but lie a-bed, for the most part, and wait patiently for a happy Delivery, which will put an end to all Complaints of this nature.

But if the Swelling is very considerable, and pits, and if the natural Heat of the Parts begins to abate, she must have recourse to hot and penetrating Medicines, and must frequently foment, with Decoctions of the Aromatick Plants in Wine, to which *Provence*-Roses are commonly added, but must not on this occasion, lest they bring on Vapours, as they very often do.

## CHAP. X.

### *Of varicose Swellings.*

THE inside of the Thighs and Legs of Women with Child, is sometimes full of little soft livid Tumours, from Blood, which are call'd *Varices*; and are Dilatations of the Veins, where the Valves are plac'd, to facilitate the ascent of the refluent Blood to the *Iliacs*, and from thence to the *Vena Cava*, and to hinder this Blood from falling down again by its weight.

*Varicose* Swellings are common to all sorts of Persons, upon violent straining, and require the Assistance and Skill of the Surgeon, as I have directed in a Course of Chirurgical Operations that I have published; but of these we need not treat here,

here, but of such only as are caus'd by a big Belly, and which cease so soon as a Woman is deliver'd. Ch. 10.

It is easy to account for these *Varices*; for every one knows, that the Blood is carry'd by the Arteries to all Parts of the Body, and returns by the Veins to the Heart; and that that Part of it which comes from the lower Extremities, would infallibly return thither, if the weight of the Child did not compress the *Iliac* Veins. Now this Blood, by its Regurgitation, necessarily dilates the Veins, especially where the Valves are plac'd, because these Parts are most easily stretch'd and distended.

These *Varices* which are only accidental, require no other Remedy, but to lay longitudinal Compresses of Rags on the tumefied Parts, and to bind them with a Linen Roller, of the breadth of three Fingers, applied circularly to the Thighs and Legs, from below upwards. This Bandage not only prevents their growing bigger, but likewise favours the Blood's ascent, and return to the *Vena Cava*. And as this method must be continued as long as a Woman is big, it is still more necessary in the time of Labour, to hinder the Vessels from opening or bursting, by the violent Strainings that a Woman is then subject to.

CHAP.

## CHAP. XI.

### *Of the Hæmorrhoids.*

THE *Hæmorrhoids*, in Women with Child, proceed either from the Compression of the *Hæmorrhoidal* Vessels, or of the *Rectum*, by the weight of the Child. In the first Case, the venal Blood cannot return to the Heart; and in the second, the Woman can't go to stool: and the Excrements being too long kept within the Body, the Patient is forc'd to strain hard before she can void them, which swells the Extremities of the *Hæmorrhoidal* Veins around the *Anus*, and occasions that troublesome and grievous Disease, which for that reason is call'd the *Hæmorrhoids*.

If the Piles proceed from the weight of the Child compressing the Blood-Vessels, Delivery is the only Cure, and the Woman must patiently wait for it; but if they are caus'd by the Womb's compressing the *Rectum*, and the Induration of the *Faces*; give her Glysters of warm Water, from time to time.

If the *Hæmorrhoids* are very painful, *Pomatums* made of *Populion*, *Galeus cerat*, and the Yolk of an Egg, must be us'd; or Liniments of the *Oil of Eggs*, *Poppies*, *Nenuphar*, *and Sweet Almonds*: or the Parts affected may be fomented with warm Milk and Decoctions of Mallows, Marsh-Mallows, white Broth, and Linseed; for these little familiar Remedies give ease, and can do no harm: and if they do but please and amuse the Patient till her Reckoning is up, still this is of some use.

CHAP.

## CHAP. XII.

### *Of the Menstrual Flux in Women with Child.*

THO pregnant Women have not their Courses, yet there are some who have them regularly to the fourth or fifth Month, and some who have them the whole time, and others again the first or second Months only, which makes them often mistake their Reckoning.

Women of a sanguine Complexion, who lose more Blood every Month than is necessary for the Nourishment of the *Fœtus*, whilst it's but little, discharge the overplus by the Vessels that open into the *Vagina*, during the first Months. And they who have their Terms from the time they conceive, till they bring forth, are, generally speaking, such as live high, use little Exercise, and have so much Blood, that were it not for this Benefit of Nature, both Mother and Child would be suffocated.

I have already shewn, that the ejaculatory Vessels were invented and fancied only by some Authors, whom *Mauriceau* follow'd, because they suited his Opinion about Generation: and for the same reason he invented these Vessels to carry that Blood to the Neck of the Womb, which some Women evacuate whilst with Child. But I affirm, that the Womb and *Vagina* are furnish'd with no other Blood-Vessels but the *Spermatick* and *Hypogastrick* Arteries and Veins.

If the menstrual Blood came from the bottom of the Womb, it would disturb and injure the Conception, according to *Mauriceau*'s System; but according to *that* of the *Ovarists*, which is the

Book II. the more probable, it may come from thence without doing any harm, because the After-birth is fastned to the superior Part of the Womb *only*; and therefore the Blood-Vessels that open any where else, and by which the *Menstrua* flow, when a Woman has very much Blood, may discharge a part of it; which passing betwixt the Membranes of the Egg and the Womb, may run out by the internal Orifice, and do no harm to the *Embryo*, that is contain'd and wrapt up in its proper Membrane.

Very many Women pass a great deal of Water, are afflicted with the Whites, and other Runnings, whilst they are with Child, who yet come happily to the full time. But these Impurities cannot flow from the Conduits of the *Vagina*, that has no Vessels for this purpose. They must therefore proceed from the Womb itself, that has an infinite number both of Vessels and excretory Ducts, and whose internal Orifice is not so exactly shut, as *Mauriceau* and others fancy'd: for if any part of the *Placenta* is loosned from the Womb, by a Blow or Fall, Blood follows upon it, and the internal Orifice opens and gives way to it. I'm positive, that not only the Blood, but all Secretions and natural Runnings are from the bottom of the Womb; and I likewise maintain, that they cannot come from any other Part, seeing the internal Membrane of the *Vagina* is very thick, and is fitly compar'd to the Palate of an Ox, and consequently not design'd for this Service. Besides, I have open'd the Bodies of several Women, at different times, and have always observ'd a great number of Blood-Vessels spread over the Womb; but in the Neck, I could never espy more than seem'd to be absolutely necessary for conveying Blood to it for its Nourishment.

I own, that the *Vagina* is cover'd with an infinite number of Glands, which separate a Liquor that increases the Pleasure in the *Venereal Act*; but that this Secretion is equally perform'd in Women that are with Child, and those that are not, and is so inconsiderable, that it deserves not to be rank'd among these Evacuations that we now speak of, and therefore makes nothing against my Opinion, which every one, who is not prejudic'd in favour of the Antients, will readily embrace. Ch. 12.

We must likewise guard against another antient Error, which is, That if a Woman with Child hath her Terms, she will bring an unhealthful and a short-liv'd Child. *Hippocrates* himself talks at this rate in one of his *Aphorisms*, and supposes that the Child is depriv'd of Nourishment. But daily Experience shews the contrary; for Women who have had *Those*, during Pregnancy, are deliver'd of very jolly and lively Children. Tho it must be allow'd, that such Women are *Plethorick*, or feed high, and use but little Exercise: For tender and weak Women, who have bad Stomachs, and eat little, suffer exceedingly by this Evacuation; and 'tis of such that *Hippocrates* is to be understood to speak in that Aphorism.

Women that are *Plethorick* must be often blooded, use Exercise, and have a spare Diet: but such as are tender and weak, must bleed very sparingly, and repose themselves in Bed, have a cooling, strengthning, and incrassating Diet, because the Blood is frequently too fluid; Compresses steep'd in astringent Wine must be apply'd to the Mother's Belly, and upon the Reins, and dry Cupping-Glasses under the Breast; but above all, let her have a good and nourishing Diet.

A great many Women won't be persuaded that they are with Child, if they have their *Own.* If the Surgeon is consulted upon this occasion, he must not be positive in giving the Prognostick; and tho he does not so much as suspect they are with Child, yet ought he not to give any Medicines of force, for he knows not what the Consequences may be.

## CHAP. XIII.

### *Of Floodings.*

THere is a great difference betwixt the Menstrual Flux, and Floodings; and they must neither have the same Management, nor Method of Cure; for what's proper in the one Case, is most pernicious in the other. The Menstrual Flux is the surest Sign of a Woman's being in Health; and even of such as are with Child, if they have Blood to spare. Big-belly'd Women, who have their Courses, enjoy better Health for the most part than if they had them not; which makes me suspect, that the Suppression of the Terms, is the cause of most Complaints that Women with Child have: But it is quite otherwise as to Floodings; for every Woman's Life is in the greatest danger from them, but especially such as are with Child; and the Child's likewise: for as the Life of each is maintain'd by the Circulation of Blood from one to the other, as has been explain'd, if they happen to lose too much Blood, they must both perish for want of it.

The Menstrual Blood flows at the usual time, by little and little, without Pain, and ceases after

some

some days; but Floodings come all of a sudden, Ch. 13.
in great abundance, *with Pain*, and flow without Intermission, except some clods of Blood that form in the *Vagina* happen to stop them; and when these are remov'd, they return with greater violence sometimes than at first.

Women are subject to Floodings when they are with Child, and when they are not so; and in both cases are in very great danger; the last requires a particular *Regimen*, and all the Care and Skill that the Physician can employ: but we must confine ourselves to the Consideration and Cure of these in Women with Child, who must have present Help and Remedy, if it is in our power.

Floodings in Women with Child, are very often owing to some sudden and unlucky Accident; such as a Fall, Blow, Slip, Hurt, or Anger, which Women are apt to conceal, that they may not be reprov'd or censur'd. However, the Surgeon ought to understand his Duty, and must order her to go to Bed, bleed her immediately, and forbid her to rise for nine Days.

Floodings in the first Months are not dangerous, but become so afterwards; and in the last Months are mortal; and those which proceed from the loosning of a great part of the *Placenta*, are only cured by delivering the Woman: which yet the Surgeon must not proceed to, except a great part of the After-Birth is separated, and attended with a great Flux of Blood.

He must not speak of laying the Woman, till he is satisfy'd there's no other way to save her Life. Let him give her Foods of easy Digestion, and that nourish much. Broths and Jellies are the best; for being Liquids, they pass quickly into the Mass of Blood, and have a more prompt Effect than Solids. If the Flux returns, let him bleed

bleed her again, to diminish the quantity of Blood, and empty the Vessels which go to the Womb: but let him draw but little Blood at a time, and rather do it the oftener: and when he intends to take two Pellets full at once, let him clap his Finger upon the Wound for about half a quarter of an Hour, betwixt the first and second, to make the Revulsion the better.

Tho some Women with Child are subject to a Flux of Blood all the while, and bring forth very jolly Children at the full time; yet they must not take encouragement from this, and venture to eat *Ragooes*, high Sauces, and such things as heat the Blood, make it more fluid, and accelerate its Motion; but on the contrary, must eat such Meats only as are prescrib'd, even tho they don't like them: for when Life is at stake, we must either deny ourselves, or pay very dear for our Pleasures.

*Mauriceau* is of opinion, that Floodings are occasion'd by the Child's twisting itself in the Navel-String, and drawing the *Placenta* so strongly, that it separates from the Womb. But this twisting happens only in the last Month, when the Child tumbles, and presents its Head to the Passage; whereas the *Placenta* is sometimes loosned all the time that a Woman is pregnant. Besides, tho the Navel-String were twisted, (as we see it is sometimes about the Child's Neck) it would sooner break, than separate the After-Birth from the Womb, as it often does, when the Midwife pulls it with force.

But whatever is the cause of these Floodings, if they baffle all the Skill of the *Physician*, and if the Flux is considerable, the Woman must be instantly laid, even tho she has no Pains. For tho the external Orifice of the Womb is *humected*, and somewhat relaxed, and therefore easily dilatable,

latable, yet Nature must not be left to do the work herself, but must have the necessary Assistance of the Surgeon, since the Life of both Mother and Child are at stake. Ch. 14.

Of all Deliveries, this is the most dangerous; for the internal Orifice of the Womb must not only be dilated, but the Child must be turn'd and fetch'd away by the Feet: and when all this is done, the Woman may possibly die for want of Blood; and 'tis well if the Surgeon is not blam'd, tho he does his Duty perfectly well.

The Case of *Mauriceau*'s Sister, who, as he relates it, was kill'd by Floodings, shews, that it is the indispensable Duty of every honest and skilful Surgeon, to *lay* Women in such Circumstances before it is too late, that they may not be lost for want of Help, as she was.

## CHAP. XIV.

### *Of Abortion.*

THO an Abortion and a Miscarriage seem to signify the same thing, yet we must distinguish betwixt the one and the other: for by an Abortion is understood a Woman's being deliver'd of a Child, with the After-Birth, before the full time; but when she is deliver'd of a false Conception, a Mole, or any extraneous Body form'd in the Womb, instead of a *Fœtus*, it is call'd a Miscarriage.

Some are of Opinion, that the word *Abortion* ought not to be made use of when we speak of Women who bring forth in the first Months of Pregnancy, but that it ought only to be apply'd

to Beasts, which drop the Fruit of their Womb before the time; and that the word *Miscarriage* is the best we can use to distinguish *that* of a Woman from a Beast. But since the Honour of Women is no way interested in this, and seeing I propose to myself to speak only so as that I may be understood; when a Woman brings forth a Child before the time, I shall make use of the word *Abortion*, and when she is deliver'd of an extraneous Body, of *that* of a *Miscarriage*.

The Causes of an Abortion are so many, that they are not to be reckon'd up. It is frequently occasion'd, not only by the natural Disposition of the Body, and strong Passions of the Mind, but also by a great many Disasters and Accidents which befal Women when they are with Child. *Mauriceau* hath attempted to set them before us, but, which is not to be wonder'd at, hath forgot several, tho not *that* of a Man's performing the *Matrimonial Duty* too often: and if we will be rul'd by him, the Husband must quit his Wife's Bed so soon as he takes her to be with Child; and if he must needs embrace her now and then, he would have him do it very rarely.

A Surgeon must say nothing to a pregnant Woman that may discourage her; but on the contrary, ought to tell her, that all will be well, provided she takes Care, and observes Directions. But above all, he ought to set before her, the great danger, both to herself and the Child, if she falls, or is hurt much, upon any occasion. And indeed, she has a great deal of reason to be careful of her big Belly: for if she is hurt, she runs the risk of an Abortion, which is always attended with a Flux of Blood that endangers her Life; and if she escapes with it, yet she is left prodigiously weak and pale, and it is a considerable time before she recovers her Health.

If

If a Woman reflects upon it but ever so little, that if she miscarries it is certain Death to the Child, she will shun all occasions of it: for must she not reproach and condemn herself for ever, if the poor Innocent falls a Victim to her Imprudence and Wilfulness; and if instead of endeavouring to preserve the Life of her Child, she destroys it before it comes into the World? Ch. 14.

If a Woman with Child has any regard to her Health, she will be very careful of herself; for if she once miscarries, she will be apt to do it next time, if not much oftner; and of this we have daily Instances and Proofs.

In great Diseases, such as acute Fevers, Defluxions upon the Breast, and the Small-Pox, most Women with Child prove abortive, and may be given over for lost, because they have both the Distemper and Abortion to wrestle with, which they are not able to overcome, even with all the Aid and Assistance that the Physician can afford them.

If an Abortion is owing to a Disease, nobody can be blam'd for it; but if it is caus'd by Medicines, such Practice is utterly condemn'd by all Men of Sense, as most pernicious and unwarrantable. Some fancy, that if they *lay* the Woman, the malignant Humours which caus'd the Distemper will be carry'd off by her Cleansings, and that they may safely order such Medicines then as they could not before. But the very Thought of it fills me with Horror, for they may as well stab her to the Heart, as do so!

Those Women are no less culpable, who endeavour to procure an Abortion by Purging, and other Methods; for this is premeditated Murder, and is by no means justifiable, even tho a Maid finding herself with Child, should do it to preserve her own and the Reputation or Honour of her Family: for it is downright Murder,

Book II. and by the Laws of all Nations ought to be punish'd with Death.

But, which is almost incredible, there are some so barbarous, as to give and vend Medicines that cause Abortions. A Maid, or a Widow, who has had the Misfortune, is in some measure excusable in the sight of Men, if she makes use of Means to save herself from Disgrace, tho before God she is not so; but those who for Money help others to such things, deserve the most exemplary Punishment: and I myself saw a Woman executed at *Paris* for following this cursed Trade.

Did a Maid reflect upon all the Sorrows and Miseries that she brings on herself, when she thinks of using Means to procure an Abortion, I'm of opinion that she would not take the Resolution. She is guilty of a double Crime in the sight of God: first, in allowing herself to be got with Child; and next, in designing to destroy it, which is a far greater one. She is oblig'd to find out some Person to give her the Medicines, and must trust him with the Secret; and not only pay him well, but be entirely at his Command. Tho she takes most nauseous Potions and Draughts, yet sometimes no Abortion ensues, and she brings the Child to the full time: and if the Medicines have the desir'd effect, she kills it, and puts her own Life in danger. Have we not seen a great many Women die, and that very suddenly too, by the violent Operation of such Medicines? But, in a word, tho they should seem to do her no harm at present, yet she has reason to dread the bad Effects of 'em afterwards, and that the Fibres of the Womb will lose their Spring, which is very often the case; for we see daily, that a great many Women who take Medicines to procure an Abortion, have no Children after Marriage, tho they long earnestly for 'em, and take

take care that their Husbands, and sometimes others too, do their very best to serve them in this Particular. Ch. 15.

## CHAP. XV.

### *Of a false Conception.*

A Conception is either True or False: A Woman is said to have a true Big-Belly, when a *Fœtus* is contain'd in her Womb; and a false one, when instead of it she is burdened with a Lump of Flesh only. It is of the latter that we are to discourse in this Chapter.

A Woman, in the first Months of Gestation, cannot tell whether she has a true or false Great-Belly, for the Signs in both are the same: She is subject to Vomitings, *Nauseas*, and Longings; she has Pains in her Breasts, her Terms are suppress'd, and her Belly grows big; whence she is apt to conclude, and very often is persuaded that she is with Child.

Every false Conception is an imperfect and decayed one; for the Liquor of the Female Egg, agitated by the most subtile Particles of the *Virile* Seed, and turned into a *Colliquamentum*, not being sufficiently rarefy'd and impregnated, decays immediately after the Conception; and then out of the Membranes of the Egg, the *Placenta*, and the Blood of the Mother, is form'd a Mass of Flesh, that remains for some time in the Womb, grows bigger, and is commonly *cast* between the second and third Months, and is called, in the most proper and strict Sense, a Miscarriage. This fleshy Substance is as solid as the Gizzard of a

Book II. Turkey, which it very much resembles. When it is open'd up, the Water that was contain'd in the Egg runs out of it, and a little Speck adhering to its internal Membrane is very remarkable, which is nothing but the *Stamina*, and the Rudiments of the decay'd *Embryo*.

False Conceptions are owing either to this, That the Particles of the *Ova* are so dispos'd, that the most subtile Parts of the Male-Seed cannot make any Impression upon them; or, That the Virile Seed is *effete*, and has neither that Quantity of Spirits nor Consistence which is necessary for fecundating the Egg. These, for the most part, are the Causes of false Conceptions. But I leave it to Physicians, and those who are sharper-sighted than I pretend to be, to find out in particular Cases which is it.

*Mauriceau* fancied that he had lit on the Reason why there are so many false Conceptions and Moles, and affirm'd that it is the too frequent Use of Venery, by which the Concoction and Rarefaction of the Seed is obstructed, and a perfect Conception marr'd and defeated. He was strengthen'd in this Opinion, and endeavour'd to enforce it upon others, by observing that Beasts have no such thing amongst them as a false Conception or Mole; because, as he wou'd have it, they never copulate but when they are richly stock'd with Seed, and in condition to engender. But since he understood this Matter so well, it was inexcusable in him once in forty Years, that he was married, not to order it so as to have one Child at least: And seeing he forbids the matrimonial Act in some Parts of his Book, and in others exhorts to an extraordinary Moderation in it, it is highly probable that he put this Advice in practice himself; what his Wife's Resentments of such Usage were, we know not.

Women

Women are eas'd of these false Conceptions sooner or later. If at the end of six Weeks, it comes away in pieces; for then it is only membranous, and the Cohesion of its Parts is but slender: At two Months its Substance is more fleshy, and it often comes away whole: But when it is retain'd three Months, it is as solid and hard as a Gizzard; and about that time Nature rarely fails to use her Endeavours to expel this extraneous Body. Ch. 15.

If a false Conception comes away without any great Flux of Blood or Pain, how happy is the Woman? Let her keep her Bed for some Days, and all will be well. But, alas! this is not always the Case; for some are at the point of Death by most terrible Floodings, which for the most part precede the Exclusion of this Substance. It is high time *then* to call for help; for the Danger is so great, that one Moment ought not to be lost.

If the Woman has Floodings when the Surgeon comes, he must endeavour to find out the Cause of them: If she has Pains which seize her by Intervals, and if Clods of Blood come away, he has reason to conclude there is a false Conception. He must in the next place ask how far the Woman, in her own Opinion, is *gone*, that he may the better judge of the Bigness of the Conception. It would not be amiss if he likewise knew whether she has had a Child before, or not; for if it is her first Big-Belly, she must expect to suffer a great deal, since her Womb has not yet been open'd, and the extraneous Body that is to be expell'd is so soft, that it can contribute nothing towards that great Dilatation that is necessary.

But if the Surgeon, upon the Introduction of his Forefinger, finds the internal Orifice of the Womb a little open, and the extraneous Body at hand, there is no more room for doubting; and he must bring it away as soon as he can. Let him therefore slide one Finger into the Mouth of the Womb, and turn and bend it till he can enter a second and a third, without hurting the Patient much; and then taking the false Conception between his Fingers, fetch it away by little and little.

But if he cannot conveniently bring it away after he has loosen'd it from the Womb, he must give the Woman no further Trouble; for when the extraneous Body is once entirely separated from the Womb, the Floodings very often cease, and it comes away of its own accord, or upon the Woman's straining never so little, and most commonly when she goes to Stool.

If the Flux of Blood continues, and is so violent as to endanger the Woman's Life, the Artist must gently dilate the internal Orifice of the Womb with an Instrument made for that purpose, which does much better than the Finger. But if, notwithstanding this further Dilatation, he cannot lay hold of the unnatural Body with his Fingers, let him take a Crane's-Bill, or *Forceps*; and sliding it along upon the Forefinger of his left Hand, introduc'd into the Mouth of the Womb, extract the extraneous Body, taking care not to pinch the Womb instead of it.

The Potions and Slops that Midwives give to procure the Expulsion of false Conceptions are unnecessary and impertinent, when there is no urgent Occasion for it; and most pernicious when there are Floodings, which they never fail to keep up and encrease. Weak Broths, somewhat

what nourishing, given every half-hour, are best in this Case, because they are quickly chang'd into Chyle and Blood, and keep the Woman alive by maintaining the Circulation. Ch. 16.

## CHAP. XVI.

### *Of a Mole.*

BY the word *Mole* we undestand a Mass or Lump of Flesh, of no regular or certain Figure, engender'd and nourish'd instead of a *Fœtus*, in the Womb of such Women only as have known Man; for since it is an imperfect and decay'd Conception, as we have said of a false one, there can be no such thing in Maids.

Clods of the last part of the menstrual Blood adhering to the Sides of the Womb, and brought off by the first return of that Flux, are often taken for Moles and Lumps of Flesh, because they look like them. I had the Honour to know a Person of the first Quality, who pass'd such little Bodies regularly every Month: and when the most skilful Surgeons were consulted, they found them to be nothing but coagulated Blood; and were fully convinc'd of it, when they saw afterwards that this Princess voided them with her Courses, tho she had not convers'd familiarly with her Lord for several Months before. Which shews us, that if this happens to be the Case with a Maid, we ought to judge charitably, seeing such a thing may be, tho she hath never suffer'd Man to approach her.

A Mole is a Mass of fungous Flesh that grows apace, and is ordinarily of the same figure with the

the Cavity that it is form'd in. Some attribute Thought to it, and others Motion; but it hath neither one nor t'other. Its Weight and Bigness are more or less considerable, according to the Time that it has remain'd in the Womb. Its Substance is harder than that of the *Placenta*. It fills the Bottom of the Womb, to which it is fasten'd by several small Blood-Vessels that bring Blood for its Nourishment; and therefore it has neither *Placenta* nor Navel-String.

A Mole as big as a little Egg is called a false Conception, of which we have treated in the preceding Chapter. Large Moles are either of Flesh, or are Heaps of Vesicles join'd to one another, like a Cluster of Grapes, and fill and distend the *Uterus* as if a Child were contain'd in it; but with this difference, That a Mole dilates it every where alike, and a *Fœtus* raises it to a Point before.

If a Big-Belly proceeds from a Mole, a Woman has no Milk in her Breasts; she feels nothing stir within her; and if she lies upon one Side, the Mole falls immediately towards it, like a heavy Bowl. She is more afflicted with Weariness in her Thighs and Legs, Difficulty of Urine, and a Weight in the lower part of the Belly. The reason of which is this, That the Weight of the Mole pulls the Womb downwards.

These Complaints, which at first may be bore with, become afterwards insupportable, and therefore the Woman flies to the Surgeon for Help; whose Business it is either to assist her to expel the Mole herself, or, if it is absolutely necessary, to bring it away with his own Hand, according to Art.

Gentle Means are to be used here, as in all other Cases, before we proceed to those that are more considerable: wherefore, if the Patient has no Fever

Fever or Floodings, let him purge her briskly, and give her sharp Clysters to excite her Throws, which dilate the Womb for the Exclusion of the Mole. The internal Orifice of the Womb must be anointed with emollient Oils, or Butter, that it may dilate the more easily. Bleeding in the Foot, half Baths, and emollient Injections, are very serviceable in this Case; and if a Mole is of a middle Size, it may come away by these Methods. Ch. 16.

But if it is very large, and adheres strongly to the Womb, the Surgeon, having pair'd his Nails, and anointed his Hand with Oil or Butter, must introduce it into the Womb of the Woman, laid on her Back upon the Bed's-side; and passing his Hand gently betwixt the Mole and the Womb, loosen it, beginning at that place where it adheres least. He must take care not to hurt the Womb, and must proceed after the same Method that is laid down for extracting the After-burden, when the Navel-String is broken.

If a Mole is so large that it cannot come away, the Artist must make use of the Crotchet, if it be so solid that it can take hold of it; otherways he must use a cutting one, and bring it away in pieces.

Women ordinarily *cast* Moles before the eighth Month, and very rarely retain them for two or three Years, or more, as several Authors tell us, and in particular *Ambrose Parey*, who relates that a Pewterer's Wife kept one for seventeen Years.

CHAP.

## CHAP. XVII.

### *Of the Situation of the* Fœtus *and* Placenta *in the Womb.*

WE have already describ'd the *Placenta*, or After-birth, which, as all Anatomists grant, is seated in the superior part of the Womb; tho none of 'em, that I know of, have given us the Reasons of this Situation, which I take to be three, and these very considerable ones too.

First, Because the Substance or Texture of the Bottom of the Womb is looser than that near its internal Orifice, which is more solid and compact, and consequently permits not the Roots and Expansions of the *Ovum* to insinuate themselves into its Pores. Besides, the Blood-Vessels of the Womb terminate in the superior part; wherefore the Egg must be depriv'd of Nourishment, did it cast forth its Roots, and fix in any other part. Secondly, Were the *Placenta* plac'd backwards or forwards, or to one side of the Womb, the *Fœtus* would press upon it constantly, and the Circulation of the Blood through its Vessels wou'd be very much retarded, if not often intercepted: But being seated in the highest part of the Womb, the *Fœtus* is kept at a distance from it by its own Weight, and no way incommodes it. Thirdly, Seeing the Blood is carried to the *Fœtus* by the Umbilical Vein, it was but fit that the *Placenta* should be plac'd higher, that the Blood by its Weight might have the freer Circulation, and run along the Navel-String to the Navel of the *Fœtus* with

with the greater *Momentum* or Force, to be distributed afterwards amongst the several parts of its Body. But it is not so with the Blood that returns from the *Fœtus* to the Mother by the Iliack Arteries; for it ascends easily to the *Placenta* by the continual Pulsation of these Arteries. Ch. 17.

There's yet a fourth Reason, to which no body has attended; which is, That the *Placenta* being plac'd betwixt the Womb and the Egg, it was necessary it should be situated in the superior part of the Womb, that the Egg might be suspended by it, and hinder'd from falling upon its internal Orifice, and passing with the Terms, the Whites, and other Impurities of the Womb, that are evacuated during Pregnancy. Which shews, that it is not so exactly shut as the Antients, and *Mauriceau*, imagined.

The *Fœtus* is always situated in the middle of the *Uterus*; for whether the Woman appears bigger on the one side or t'other, or the Body contain'd in it makes it rise more or less, it is still the Cavity of the Womb that is fill'd and distended by it.

It is ridiculous to think that Boys are seated in the right Side of the Womb, and Girls in the left, seeing there's only one Cavity; and when there are Twins, whether they are Males or Females, they are plac'd on either Side without Distinction.

The Posture of the *Fœtus* is always such, that the several Parts of the Body are so bended, that they are altogether of a round Figure, like a Bowl, because of the Cavity of the Womb, to which they must be suited; as all the Parts of a Chicken are to that of the Egg which contains them.

The Infant's Face is plac'd forwards, his Back rests upon the *Vertebræ* of the Loins of the Mother,

ther, the Chin touches the Breast, the Back-Bone makes a Semicircle, the Thighs are rais'd towards the Belly, the Heels touch the Buttocks, the Hands go round the Thighs and Legs, and the Head is supported by the Knees.

The *Fœtus* continues in this uneasy Posture till the ninth Month; and with the help of the Waters in which it swims, makes some small Motion only: But at the end of the eighth Month, or the beginning of the ninth, it turns; and tumbling forwards, the Head, which was uppermost, is nethermost, and rests upon the internal Orifice of the Womb, through which it comes into the World; its Back is turn'd towards the Mother's Belly, and its Face towards the *Intestinum Rectum*, or Strait-Gut.

When the *Fœtus* turns up-side-down, as has been describ'd, the Mother feels an extraordinary Motion, which makes her think that her Labour is at hand. But this is a false Alarm; for the *Fœtus* remains in this Situation to the full Time.

If the *Fœtus* did not put it self into that Posture, in which it comes into the World, till within a few Days before its Delivery, it would be too big, and cou'd not turn with that Ease that it does a Month or six Weeks, before.

The Posture that the *Fœtus* puts it self into, is the most convenient that can be; for its Head, that must past first, is next the Mouth of the Womb. Its Face is turn'd downwards, that it may not be hurt by the Hardness of the *Os Pubis*; and its Feet being turn'd upwards, when it stretches them out in Time of *Labour*, it pushes against the Bottom of the Womb, and by this Motion forces the Head into the Passage, and makes way for the rest of the Body.

In the two or three last Days of Pregnancy the *Fœtus* falls lower, and the Belly goes down; which

which is a certain Sign of approaching *Labour*, and is so well understood by Women that are accustom'd to bring Children, that they are often heard to say, That they will bring forth very soon, because their Belly is gone down. Ch. 18.

## CHAP. XVIII.

### *What a Woman ought to do when she hath gone her full Time.*

WOmen with Child are advis'd by Surgeons and Midwives, who have the Direction and Management of them, to use more Exercise in the last Months than the first, because they think a sedentary Life makes *Labour* more difficult. This Opinion and Practice has been handed down to us with universal Approbation; *Mauriceau* alone having oppos'd it, who gives the contrary Advice to Women, and sets before them the Danger of not following it, in several Instances. He tells them that the *Fœtus* turns it self about this Time; and that Exercise may hasten it, and make it take a wrong Situation or Posture, and occasion difficult Labour, Floodings, and the *Fœtus*'s falling down too soon, and consequently Labour before the Time.

I grant that violent Exercise will produce these, and perhaps worse Effects: But it is the receiv'd Opinion, that a Woman with Child should use moderate Exercise, and walk more in the last Months, to procure an easy Labour; for it is observ'd that Women that work or walk pretty much, have a better Time on't than those who

Book II. who are idle and lazy. It is true, that Women with Child who are subject to Floodings, or who carry their Burden so low that they can neither walk nor stand upright, must take rest, and keep their Beds; but such as desire to provide against a lingering and difficult Labour, must use moderate Exercise; and therefore 'tis plain that *Mauriceau* carried the thing too far.

He takes upon him to forbid the Use of Purgatives, Glysters, and Bleeding, when a Woman is near her Time, alledging that these Remedies put the *Fœtus* into such violent Motions, as endanger the Womb's opening for its Exclusion before the Time. But tho we grant this with respect to Purgatives and Glysters, yet Blood-letting can have no such Effect; for it gives the *Fœtus* more room to move, which is rather an Advantage than a Prejudice to it, and prevents its Strugglings to get out of a streight and uneasy Prison, which very often hastens Delivery.

*Mauriceau*, in the same Chapter that he forbids Exercise, and the Use of stimulating Medicines, prescribes emollient Fomentations, and the anointing the *Parts* with Oil and Fat, to make them more supple and dilatable I must say, this is such a Contradiction as one shall rarely meet with, since Exercise, the Use of Purgatives, Emollients, and unctuous Things, tend all to hasten and accelerate Delivery. It is true, that Oil and Butter are us'd; yet that is only in time of Labour, and when the Internal Orifice of the Womb begins to dilate and open: But should any one anoint the Parts with them eight or ten Days before that, as *Mauriceau* directs, I believe that very few would approve of the Practice.

The best Advice that can be given to a Woman who is near her Time, is to do nothing; for Purgatives, Glysters, Baths, Fomentations, Inunctions,

unctions, and the like, are against her for the Reason just now given: And it is my Opinion that Bleeding in the ninth Month, which is a common Practice, ought to be put off, if there is not an absolute Necessity for it, till there are certain and clear Signs of an approaching Labour; when 'tis of excellent Use, both as it empties the Vessels, and happily prevents too great a Flux of Blood. Moderate Exercise is the best and safest Expedient that she can make use of to facilitate her Labour. Thus we see Midwives order Women to walk up and down the Room, when their Pains are lingering, with very good Success. I am sensible that some Women cannot walk nor stand upright, without very great Pain, and are therefore oblig'd to keep their Bed the three last Months, which was the Case of the late *Dauphiness* in her first Child; and tho she had a very easy and happy Delivery, yet this alters not the general Rule, neither must Women follow her Example, and use no Exercise, except they are in the same Circumstances, and have the same Reasons for it. Ch. 18.

We have now finish'd the Second Part of this Book, wherein we have treated of the several Indispositions and Accidents to which Women, during the Time of their being with Child, are usually subject: We have likewise propos'd the Means for remedying the one, and preventing the other. And therefore in pursuance of the Method laid down, we proceed to teach the young Surgeon and Midwife the Art of Midwifery; that is to say, What they are to do when call'd to deliver Women, whether their *Labour* is natural or difficult.

*The End of the Second Book.*

A

# General Treatise

OF

# MIDWIFERY.

## BOOK III.

### *What is to be done in Time of Labour.*

THE two preceding Books rather contain the *Theory* than the *Practice* of Midwifery; for the First treats of the *Generation* of Man, and the Second of what is to be done for the Preservation and Safety of the *Fœtus*, from the Moment of Conception to the full Time of its Exclusion or Birth.

But as we must endeavour to provide against the Accidents and Dangers to which it is liable whilst in the Mother's Womb, so we must likewise use our utmost Skill and Care, which way soever it presents, to bring it into the World; which

which is not to be done by Words or Discourses, but by the Hand of the Surgeon or Midwife only. Chap. 1.

We shall therefore in this Third Book, which consists of twenty eight Chapters, discourse of *Natural*, *Unnatural*, and *Difficult Labours*, and of the surest and best Method of making our selves Masters of a Child, what Situation soever we find it in, or of whatever Sort the Labour is; for the Surgeon *then* gives the most substantial Proof of his being well skill'd in his Art, when he turns the Child in the Womb, as there's occasion, with the same Dexterity and Ease that he turns his Case of Instruments in his Pocket.

## CHAP. I.

### *Of a Woman's Labour or Delivery.*

A Woman is said to be delivered when she brings forth a sound and lively Child of either Sex in the ninth Month, especially at the end of it, which is the full Time. And the Word *Delivery* is applied to her only; for a particular *Term* is us'd to express almost every Animal's bringing forth its Young: thus we say a Cow calves, a Bitch whelps, and so of the rest.

Labour is either Natural or Unnatural. Four Circumstances are requir'd to denominate a Labour *natural*: First, It must be at the full Time. Secondly, It must be speedy, and without any considerable Accidents. Thirdly, The Child must present or come right. Fourthly, It must be alive. Let us consider these four Conditions one after another.

All Animals have their set Times for copulating, and bringing forth their Young: Birds have theirs for laying their Eggs, which they sit on for a certain Time also. Fishes drop their Eggs at particular Seasons, from which others proceed against the Time appointed. Insects leave Eggs before they die, out of which others arise in time. Plants likewise, whose Seed is Eggs, have each their Season of Seeding, in order to produce others. This is the establish'd Rule and Order, which hath not been violated, that we know, since the Creation of the World.

Women are not exempted from this general Rule and Law; but there is this Difference, That whereas almost every Animal conceives but once a Year, they are apt to fall with Child twelve times, at least, immediately after each menstrual Flux; for the Womb is *then* prepar'd to receive and retain the *Virile Seed*, and make the proper Use of it.

Each Animal hath a fix'd Term for bringing forth its Young, some a shorter, others a longer one: A Woman goes nine full Months, if no extraordinary Accident or Disease causes an Abortion. Those who say they go a longer or shorter Time, have often their own Reasons for it; and therefore the Surgeon must not believe them. Neither must he go about to shew them that there can be no such thing; for they are sometimes oblig'd to maintain what they advance, to save their Reputation.

A great many Women are really mistaken in the Judgment they make of their Big-Bellies; for some who have their Courses the first two Months of Pregnancy, reckon from that Time, and are confident when delivered that they have gone seven Months only: Others having *seen nothing* for eleven Months before they bring forth, are

persuaded that they were with Child two Months before they were really so. Ch. 1.

The Surgeon, however, on some occasions, must not maintain, that Women go constantly nine Months: for if a new-married Woman at the end of seven, brings forth as fine and lusty a Child as if she had gone the full time; if a Widow is deliver'd of a Son, who is to be Heir to her Husband, ten or eleven Months after his decease; or if a Woman is brought to Bed eleven or twelve Months after her Husband has gone a Voyage; shall we say, that such things are impossible? The Reputation or Honour of these Women is at stake; and therefore the Surgeon, for the Peace and Credit of Families, must not only pretend to be convinc'd of the possibility of them, but likewise bring parallel Cases to illustrate and prove it.

The Decrees of Sovereign Courts, and the Decisions of *Civilians*, and others learned in the Law, make nothing against what has been said: for they are founded, for the most part, upon artful and false Representations; and Reasons of State, private Interest, and Convenience too often influence those who pronounce them. And if we consider how steddily and uniformly Nature acts, we shall find it reasonable to conclude, that every Woman goes nine Months, since this is the Term prescrib'd by Nature.

As the Author of Nature hath implanted in Man a desire to procreate and beget his Like, and hath given him a Disposition for it at all times, whereas all other Animals seek to copulate at certain Seasons only; so he hath likewise blessed and endowed him with a rational Principle, for the Government of this and all other Passions that he is subject to.

The second thing requir'd to denominate Labour natural, is, That the Child present right, or comes with its Head foremost; which the Midwife may be assur'd of, if when she introduces her Finger into the internal Orifice or Mouth of the Womb, the Part that she touches, feels hard and smooth; for then she may depend upon it, that it is the *Cranium*, or Head, that makes the Resistance, and may affirm to the Mother, that her Labour will be natural; and that when the Mouth of the Womb is sufficiently dilated for the passage of the Child, which her Pains or Throws will not fail to do for her, she will have a very safe and happy Delivery.

The third Requisite of a natural Labour, or Delivery, is, that it be reasonably quick; for if it were too much so, the Child would dilate the Mouth of the Womb in too short a time, and the Pains would come so thick, and be so violent, that the Contractions of the Womb would be both weaken'd and hinder'd. Besides, an easy and sudden Delivery is not so much for a Woman's Repntation, especially in her first Child; for People are apt to conclude, that the Parts have been open'd and relax'd before, and therefore most Women are proud of being long in Labour. But as too speedy a Delivery is not desirable, so neither is too slow a one; for lingring Pains, which bear not downwards, weaken the Mother, and neither favour nor forward Delivery. That Labour is also the safest, which is attended with the fewest Symptoms or Accidents that are considerable, for some slight ones there must be, such as Pains, which are unavoidable.

The fourth thing requir'd to make Labour natural and happy, is, a living Child. How sad and melancholy must the Mother be, when she has no other Return of her Sufferings for nine Months,

Months, and more, especially in time of Labour, but a dead Child! How disconsolate must the Father be, and how surpriz'd the Assistants and Standers-by, who expected no such thing! Sadness and Disappointment may be read in every Countenance, and that Joy which the hopes of having a living Child had inspir'd, is utterly baniſh'd in a moment. Ch. 1.

Those who understand not the Structure of the Womb, know not how to account for its dilating so very much, as to open a Passage for a big Child. This is matter of Admiration to them; but it is not so to others who have study'd Anatomy, and know that the Fibres of the Womb are capable of such a Distension, as is sufficient to give *Egress* to the largest Infant that ever was, or can be.

We have given an exact Description of the several Parts of the Womb, in the first Part of this Book. Every one knows that its Bottom stretches gradually in proportion to the growth of the *Fœtus*, and that it can contain two, three or more. When a Woman's Reckoning is up, its internal Orifice, compos'd of a great number of distractile Fibres, is open'd a little by the Head of the Child, that strikes against it, and dilates it more and more every *Throw*. When the Head has got beyond the internal Orifice, it enters the *Vagina*, which being compos'd of thick and plaited Membranes, capable of a very great Extension, makes no Resistance, and in a very little time the Child advances to the external Orifice, where it stops for a Minute, and opens it sufficiently. The *Caruncul*æ *Myrtiformes*, the *Nymph*æ, and the *Labia*, which are all membranous, and of a loose Texture, are plac'd round this Orifice, and readily stretch and give way; and then the Child, with the help of the Midwife, comes into the

World with the greatest ease and safety: and in all this I think there is nothing miraculous; for the thing is not only natural, but plain and clear.

A great many of the Antients, who had but a very imperfect Notion of the Structure of the Parts that encompass the Womb, fancy'd that the *Ossa Ilia* and the *Os Pubis* come asunder in time of Labour. Neither have they wanted their Followers, who have had the Assurance to tell us, that they have found these Bones separate a Finger's breadth fifteen Days after Delivery. But I am very sure, that these Authors were mistaken; for I have enquir'd into this as much as any body ever did: I have likewise dress'd a great many Skeletons, and have always found these Bones join'd together by Cartilages, so hard, that I had much ado to cut 'em with the sharpest and strongest Knife. What led them into this Error, was their fancying the Space which those Bones made in the lower part of the *Hypogastrium* to be so strait, that the Child cannot pass. But 'tis very probable that they judg'd so by looking upon the *Skeleton* of a Man, and not *that* of a Woman, in which the Bason is much larger, the *Ilia* are at a greater distance, and the *Os Sacrum* turns more out, which makes their Hips and Breech bigger than Mens, and the Child finds a very easy Passage. Wherefore, there's not the least shadow of Reason to think that these Bones separate, as those Authors conceited.

CHAP.

## CHAP. II.

### *The Signs of an approaching Labour.*

WHEN a Woman's Reckoning is up, she narrowly observes every thing that happens to her; and has very good reason to do so: she's the Party concern'd, and is to act the principal Part. As soon as she feels the least Pain, she calls for Help; and whether the Surgeon or Midwife comes to her, they must understand and consider well, of what sort her Pains are, before they put her in Labour; for there are true and false Pains.

Those are call'd false which are not felt in the Womb, nor bear downwards; and are occasion'd by Wind or Bile in the Intestines, as appears by a rattling Noise, wringing Pains, and a *Tenesmus*, or continual desire to go to stool, which usually attend them. Violent Motion, Anger, and Shiverings follow'd by the Fit of an Ague, sometimes cause these false Pains also.

True Labour-Pains begin in the Reins and Loins, and terminate in the Womb; the Woman has a fuller, quicker, and higher Pulse; her Face is red and inflam'd by the accelerated Motion of the Blood, and the Efforts she makes to help the Birth; the Pains redouble by Intervals, and grow stronger and stronger, and end at last in Delivery.

New-marry'd Women very often take Labour-Pains for Cholick ones; as a certain Princess did, who had warm Napkins apply'd to her Belly. 'Tis true, that her Pains which came by Intervals ceas'd,

Book III. ceas'd, but not before she was safely brought to Bed. Women who have had Children, know better things, and take their Measures accordingly.

The Signs which precede a natural Labour, and happen a few days before, are unusual Pains in the Reins; the Belly, which before lay high, falls very low, and makes the Woman walk with more difficulty, and causes her to urine very often; and slimy Humours, appointed by Nature to moisten and lubricate the Passage, begin to flow from the Womb.

Besides these general Signs, when the Birth is near, others supervene; such as an universal Trembling, especially of the Thighs and Legs, with Shiverings, but not with cold, as in the beginning of an Ague-Fit. She is very often subject to Vomitings, which fright the Assistants and Standers-by, who know not that they are of excellent use, and that 'tis a sign the Child will come right, and that it strikes against the bottom of the Womb, which has a Sympathy with the Stomach, by reason of the Ramifications of the Nerves distributed to both the one and the other. Lastly, when the Humours which then flow from the Womb are dy'd or tinctur'd with Blood, it is an infallible Sign of an approaching Delivery.

The Surgeon, who must not fatigue the Woman, by laying hands on her to no purpose, as most Midwives do, ought from time to time to feel the internal Orifice of the Womb, that he may make a right Judgment, and give the Prognostick surely. If he finds the Mouth of the Womb dilated, and that the Membranes of the Infant resist the Touch, as a Pudding or Bag full of Water does, 'tis a sign that the Waters are gathering, and are urg'd forward by the Child's Head.

Head. Finally, when the Membranes are broke by the Efforts and Strugglings of the Infant, and the Waters run off, we may be assur'd that the Woman will be deliver'd in a short time. Chap. 3.

## CHAP. III.

### *What is to be done when a Woman first falls in Labour.*

WHEN the Surgeon or Man-Midwife knows, by the Signs just now mention'd, that a Woman is certainly in Labour, he must get every thing ready, and prepare to give her the necessary Assistance. It is of these preparatory Dispositions that we shall speak in this Chapter; for the Means of helping her shall be the Subject of the next.

It is not to be expected, that the same Regimen will suit all Women with Child, or in Labour, alike; for what is proper for some, is most pernicious for others. Here the Artist must shew Judgment and Skill, and not like ignorant old Women, take the same Method with every one, without regard to the different Circumstances, Symptoms, and Consequences that may happen.

The first thing he has to do, is to put such Questions to the Woman, as may enable him, if direct Answers are given, to judge aright of her Case. He must attend diligently to what she says, and must not appear surpriz'd or concern'd, tho she tells him things which do not promise well: and tho he apprehends, from the bigness of her Belly, and other Circumstances, that she has Twins,

Twins, or that the Child will not come right; he must not take any notice of it so soon, but on the contrary, must encourage the Woman, and tell her, and the Assistants and Friends, that all will be well.

He must not tell the Patient, that she will be deliver'd at a certain Hour; for when some Women have been told so, I have seen them fret prodigiously after the Hour was past. And in truth, quarters of Hours appear to be so many Days to Women in Labour, especially when they are made to hope that their Sufferings will be over at a set time. It is more prudent to take rather a greater time for it; for then she will wait patiently for the appointed Hour, and will have no reason to be angry or fret if she is not brought to bed before it comes: and if she is deliver'd sooner, she will be apt to think that it is wholly owing to the Care and Skill of the Artist, which is very much both for his Interest and Reputation.

*Mauriceau* orders a Glyster, Bleeding, Meats of easy Digestion, such as Jelly-Broths, new-laid Eggs, and a Toast with Wine and Sugar. He forbids the use of luscious Wines, *Ratefia*, and all Liquors that are very heating. But since his Advice is proper in some Cases, and improper in others, let us consider how far we are to follow it.

He gives two Reasons for ordering a Glyster: First, because it empties and discharges the *Rectum* of *hard* Excrements which are often contain'd in it, and compress the Womb, and consequently make the Passage straiter. Secondly, because when a Woman endeavours to void the Glyster, Gripes are mov'd, which quicken her Labour-Pains. But he forgot a third Reason, which is, That the Excrements may not come away in time of Labour,

Labour, as they very often do, by the Child's Head pressing upon the *Gut*; which is very unacceptable and troublesome both to the Woman and the Surgeon or Midwife. Chap. 3.

But there's no occasion for Glysters, if the Woman has had a Stool some time before. Besides, as *Mauriceau* in several places forbids the hastening or forcing Labour, so 'tis certain that Glysters have this Effect; and therefore are never to be given, but in cases of Necessity, or in unnatural Labours.

Bleeding is sometimes of great use in time of Labour: but there ought to be some Indication for it, which is not to be expected in a natural one. *Mauriceau*, however, enjoins it; alledging, that the quantity of Blood may be safely diminish'd, when a Woman is to nourish her Child no longer. But this Reason is not sufficient to justify the Practice at all times. If a Woman is *Plethorick*, and hath not been blooded for a long time, I own that it is necessary: but if she's weak and tender, and hath eat but very little from the time that she conceiv'd, she must by no means be weaken'd by Blood-letting. Neither need we be afraid of any great Flux of Blood, or Floodings, to which robust Women, and such as feed high, are subject: for tho she has a pretty large stock of Blood, Nature will not readily attempt the evacuation of it this way.

If a Woman's Pains seize her some time after Dinner, or Supper, no Food must be offer'd to her; for it were better her Stomach were quite empty. Some Women think they are undone, if they eat not once in four Hours; and we are oblig'd to humour them, not, as they fancy, to give them Strength, but for Peace sake, and to satisfy Custom. For in natural Labours, which for the most part last not above seven or eight Hours,

Hours, they ought not to eat; but if they are not deliver'd in that time, they may take Jellies or Broths to keep up their Spirits.

*Mauriceau* forbids the use of rich Wines, and all Compositions that heat the Blood much. I own, that a Woman in Labour, who has a high Pulse, whose Face is red from the violence of her Pains, and whose Throat is dry with crying out, has no occasion for such Liquors as heat her more, but ought rather to have Ptisans or Fountain-Water, to cool her and extinguish her Thirst. And that the Sack or Canary-Wine that is provided, may not be lost, let it be given to the Assistants who are dispirited for want of Rest; for 'tis more proper for them than for the Woman in Labour.

A great many Women, and even Ladies of the first Rank, use to take something, imagining that they should faint if they did not. The Princesses have a mighty opinion of distill'd Water of Hartshead; some take a compounded *Rosa-Solis*, others, Celestial Waters: those who are not so nice, take up with a Decoction of Cinnamon in Wine, sweetned with Sugar; and the poorer sort with Wine alone. Should the Surgeon endeavour to dissuade them from the use of such Liquors and Drams, he would but lose his Labour, and be less acceptable. If he can prevail with them to moderate the Doses, 'tis very well; he ought to propose no more.

As it is not convenient for the Artist to declare against the Liquors which Women take when they are in Labour; so it is not safe for him to open his Mouth against Reliques and Shrines that are then brought to 'em; for he must pass for a Heretick or Atheist, if he does not pretend to have faith in such things: and therefore he must leave the good Women to do in this respect what they

they please. Some promise to deliver a Prisoner, Ch. 3.
others to perform a nine Days Devotion: some
order Masses to be said, others the Girdle of St.
*Margaret* to be brought to 'em; others again pro-
mise and vow that their Children shall be of some
religious Order But as all these Actions have
little in them, so they do no harm.

Some Women are accustom'd to be deliver'd standing, others leaning with their Elbows on a Pillow laid on a Table; some in a Chair, others on their Knees; others again on a Quilt, by the Fire-side; and others in their Bed. The Surgeon must not insist upon their changing their custom; 'tis sufficient that he proposes to 'em the Posture and Place which he thinks most convenient and safe.

The *English* make use of an Elbow-Chair, hollow'd before, which is convenient for both Mother and Child: but not being known in *France*, it would not be easy to bring it into use.

The ordinary way in *France* in this: The Woman is plac'd upon a little Palate-Bed, as they call it, that is set up on purpose, in the largest Corner, by the Bed-side. The Surgeon must order two Quilts, without a Feather-Bed, to be laid upon a Resting-Bed not above three Foot broad, and a Board to be put betwixt the Quilts, that the Woman's Buttocks may be kept up: two Sheets and a very thin Coverlet must likewise be laid on the Bed. The Woman's Head must be rais'd by two Bolsters. Two Pins, a Foot in length each must, be driven into the Bed-sides, that she may grasp them with both her Hands in time of Labour; and her Feet must be stay'd against some firm thing fasten'd to the foot of the Bed.

Tho these Palate-Beds are most convenient, as all Women that make use of them do own; and

tho

Book III. tho Queens and Princesses, for whose Service and Accommodation the utmost Contrivance and Art is employ'd, are *laid* in these Beds, particularly our Queens, and the Dauphiness, for whose use one was made, which is kept in the King's Wardrobe; yet *Mauriceau* advises every Woman to be deliver'd in her ordinary Bed, because it saves them the trouble of being removed from one Bed to another, when their Labour is over.

But methinks this small Inconvenience ought not to be put in the ballance with the many Conveniences that attend the use of this Palate-Bed. I call the Inconvenience small, because it is really so; for two People may easily bring the little Bed close to the big one, into which the Woman may be put without any trouble to her, after she is deliver'd.

The Advantages of a Woman's being deliver'd in another Bed than her ordinary one, are these following: The Bed being narrower, the necessary Assistance is more conveniently given her; her Hands and Feet are stay'd; two Assistants can more commodiously put a long piece of Linen-Cloth under her Reins, and keep it tight, one on her right, t'other on her left side, which is a mighty ease to her; the Surgeon gets nearer to her to do the several parts of his Office; the Bed is not spoil'd with the Impurities that flow from the Womb. The Woman may remain in this Bed for some Hours after Delivery; during which time, the Womb discharges a great quantity of Humours; the Woman's Linens are changed; a Childbed-Smock and an Under-Waistcoat are put on; her Belly, Womb, and other Parts that have suffer'd, are treated as we shall afterwards shew; she is put into her large Bed, that's in good order, and is made up for her Ease and Rest, which she stands in great need of, and

ought

ought to court above all things in her present Circumstances. Chap. 3.

While the Palate-Bed is getting ready, the Surgeon ought to send for such Medicines from the Apothecary as may be wanted; such as Oil of Sweet Almonds, the Oil of Walnuts, and Syrup of Maiden-Hair: he must provide himself with five or six Eggs, some Oranges, and a Bottle of Wine; which if it is not us'd in time of Labour, will serve to make the Infant clean. But above all, he must have in readiness a large Thred a Foot long, doubled three or four times, to tie the Navel-String withal; and Scissars to cut it so soon as it is tied.

There's one thing that is by no means to be neglected, which is, the Woman's combing of her Hair well, throwing plain Powder upon it, and putting on such Head-Clothes as will keep her very warm, so fast that she need not alter them for the first twelve Days of her lying-in.

When things are thus order'd, we must wait patiently till the Pains grow stronger; and in the intervals of them, discourse of Subjects that are diverting; and must take great care that we talk not of unfortunate and fatal Labours. A favourable Interpretation must be put upon every thing that happens; and the Woman must be told, that she will certainly do well, and have a fine Boy in a short time.

## CHAP. IV.

### *What is to be done for a Woman in Labour.*

WHEN a Woman's Pains are so increas'd, that she cannot walk, and that 'tis uneasy for her also to sit still, the Bed that's prepar'd must be warm'd, and she must be put into it.

*Mauriceau* allows not a Woman to be put to Bed till her Waters are broke; but I am of opinion that we shou'd not wait so long. It is true, there are several Women who have a great many *Throws* before they bring forth; but 'tis no less certain that there are some that are deliver'd immediately after the Waters break. Therefore I think it no way advisable to keep Women out of Bed so long; for should the Waters break, and the Child come away upon it, when the Woman is up, it might fall on the Floor, as it hath often happened.

We must likewise take care that the Woman is not put into her Palate-Bed too soon; for the Time seems much longer to her when she's in Bed, than when she's up. Besides, she expects to be deliver'd soon after the Surgeon orders her to lie down; and if it falls out otherwise, she frets, complains, and takes her self to be in danger. It is therefore the Duty and Interest of the Artist to shun both Extremes, and to act with the greatest Discretion in this Matter. When the Woman is in Bed, she must lie on her Back: her Head and Breast must be a little rais'd, that she may breathe more easily, and have the more Strength

Strength to bear down and help her Pains. A Pillow ought to be put under her Buttocks, that they may not sink down. She must open her Thighs very wide, and fold her Legs towards her Buttocks. Let a Woman be plac'd on each hand of her, that she may hold them by the hand when her Pains are upon her, and that they may give her what she wants. Let the Surgeon place himself on her right Side, as most commodious both for himself and the Patient. Chap. 4.

When the Disposition is thus made, let the Artist wait for the Pains, which come by Intervals, and grow stronger and stronger; and *then* having touch'd the Woman in one of 'em, he may give the Prognostick, and tell in what Time she will be deliver'd. But let him not be too positive; for the Pains often grow slack, and cease for some time, which retards the Delivery.

When the Man-Midwife has *tried* the Woman, and finds the internal Orifice of the Womb so much dilated that he can feel the Head of the Infant through the Waters which make way for it, and if he is sure that the Child is right turn'd, he must not trouble and fatigue the Woman by touching the Parts, as some busy Midwives do, every time that her Pains come, but must let several Throws pass; which fail not to forward the Delivery as much as if he touch'd the Patient every Moment.

There are some Women who cannot be persuaded that enough is done for them, if the Surgeon or Midwife are not fingering them continually: Such he must humour; for they will have it so.

Others there are who cry as loud at first, as when their Pains are extreme and insupportable: But they must be told that their Cries do more

harm than good; and that they ought to husband them, and not employ them when it is to no purpose; and that when 'tis time, and there's occasion for it, they shall be allow'd to cry as loud and as long as they please.

The Artist, as often as he finds it necessary to try the Woman, must anoint the internal Orifice of the Womb with Butter, that it may dilate the more easily and speedily, upon which a quick Delivery depends very much.

But tho I own that Oils and Butter facilitate the Dilatation of the internal Orifice of the Womb, yet I must observe that it is the Head of the Child pushing against that Part in every Pain, that at last forces the Passage; and that the stronger the Child is, its Efforts and Strugglings are the more powerful and frequent. Hence it is that Women, for the most part, have a speedier Delivery in Boys than Girls. Those Women who go often to their Neighbours in Labour are so much persuaded of the Truth of this, that they are apt to say that a Woman will be deliver'd of a Girl when her Labour is lingering and tedious: And in truth, 'tis a general Observation that Boys make greater haste into the World than Girls, except such of them as have a big Head, and broad Shoulders, who are oblig'd to make great and repeated Efforts before the internal Orifice of the Womb is sufficiently dilated for their Passage. As the Strugglings of the Child occasion the Pains and *Throws*, so those Pains which are not strong and considerable do not forward and bring on the Woman's Delivery; and therefore are not call'd useful and *good* Pains.

There are some Women that bear down their Pains as much as they can every time they take 'em, in hopes and expectation of a more speedy Delivery: But this tends only to fatigue and weaken

weaken 'em; and the Artist ought to advise them to forbear till such time as he shall direct them, to use these Efforts to some Purpose and Advantage. Chap. 4

Since the difficult and slow Dilatation of the internal Orifice of the Womb retards Delivery, it ought to be the Artist's chief Care to favour and promote this Dilatation by anointing the Orifice from time to time with Butter, and turning his Finger gently round in it.

When it is a little dilated, the Membrane that contains the Child, and the Waters in which it swims, is urg'd by it into the Space made by the Dilatation. This Membrane must not be tore with the Nails, as many Midwives do; for if the Waters which serve to moisten and lubricate the Parts run off any considerable time before Delivery, it is more difficult. They must therefore be left to break of themselves by the struggling and pushing of the Child, who very often comes soon after them.

When the Waters are broke, the Surgeon feels the Child's Head advanc'd, and plac'd directly in the internal Orifice, which girds and surrounds it like a Crown; wherefore 'tis then said to be *crown'd*. The Child now and then stops here for some time, because the Orifice is not sufficiently dilated, and his Head, which has yet no Sutures, lengthens to a Point in the Middle of the Crown; and at last by repeated Efforts, which are stronger than before, because he can stretch himself better, he forces his way, enters the Neck of the Womb, and is then said to be in the Passage.

Tho the worst is past, yet all is not over; for the Child often meets with Resistance at the external Orifice, whose *Caruncul*æ, *Nymph*æ, and *Labia* neither stretch nor open very easily. The

Book III. Infant's Head may then be seen, but advances not without the assistance of the Artist, who sliding his Hands betwixt the Head and the *Labia*, opens them; and then slipping his Fingers under the Jaws, upon the first great Pain that comes, brings it away.

The Shoulders, which come next, sometimes stick fast: The Head must not be pull'd with force, lest we should separate it from the Body; and the Surgeon must move it first to the right, and afterwards to the left, that the Shoulders may make their way the more easily. And if this does not answer, he must slide his Fingers along the Neck of the Child under the Armpits, and draw out the Body without loss of Time; lest the Head being past, the Child stopt by the Largeness of the Shoulders, should be suffocated in the Passage.

Let him take care that the Navel-String be not entangled about the Child's Neck, or any other Part of his Body, lest it be broke, or the After-Burden be pull'd with Violence, and with it the Womb, to which it is still fasten'd, and a dangerous Flooding ensue.

So soon as the Child is born, let it be laid on its Side, with its Face towards you, that it may breathe the more freely, and that it may not be choak'd or incommoded by the Waters and Blood which follow immediately after the Birth.

The Mother is very often impatient to know whether she hath brought forth a Son or a Daughter: But the Surgeon must not tell her till she is entirely delivered; for the Joy of having a Son, or the Grief of having a Daughter only, make sometimes such Impressions upon Women, as retard the After-Burden's coming away.

After a Child is born, the Navel-String is to be tied, and the After-Burden brought away. Some would

would have the one done first, some the other; and both have their Reasons for justifying their Practices, as we shall shew afterwards. Chap. 5.

But the Artist, before he proceeds to the one or the other, must carefully examine whether there are more Children in the Womb, or not; for if there are, he must take care to deliver her of them, and then fetch away the After-Birth. He may be assur'd that the Woman has another Child, or more, to bring forth, if her Labour-Pains continue, if her Belly is still big, and if he feels a Membrane full of Water presents in the Passage. But if there's no Appearance or Sign of any more Children, the After-Birth must be brought away as soon as possible.

## CHAP. V.

### *How to bring away the After-Birth.*

IT is very well known that the After-Burden is a round and flat Lump of Flesh, that ought to come away soon after the Infant; and is so called, because it is a second Burden, which loads the Woman, and incommodes her very much till she is entirely delivered of it.

We have already observ'd that there are some Surgeons who wou'd have a Woman *deliver'd* that Moment the Child is born. This was both the Opinion and Practice of *Mauriceau*, who alledges that the internal Orifice of the Womb shuts while we tie the Navel-String, and makes it a harder task to bring away the After-Birth.

Those who make the Ligature upon the Navel-String before they deliver the Woman, and in

particular *Clement*, are of opinion that we can't make too great haste to separate the Child entirely from the Mother, and give it to those who are to take care of it. They tell us likewise that the longer we delay tying the Navel-String, the Child loses the more Blood, which is pour'd and carried into the *Placenta* by the *Umbilical* Arteries; and that the Cries of the Child, while it lies by the Mother, who is naturally tender, are apt to make such an Impression upon her, as hinders and retards the Delivery.

The most noted and expert Surgeons want not their own Reasons for what they do in this Case; and therefore we shall not censure or condemn them, but take the middle way, and endeavour to reconcile them, by proposing to the young Surgeon, That as soon as the Child is born, and laid on its Side, he should slide his Hand along the Navel-String, and bring away the After-Birth before he ties it, if it does not adhere to the Womb. But if he finds it difficult to separate it from the *Uterus*, let him first tie the Navel-String, and cut it, and give the Child to one of the Assistants; and then do his best to fetch away the After-Burden according to Art, and as the Circumstances of the Woman require it.

Tho the new-born Infant is taken from the Mother, yet the Navel-String, which hangs without the *Vagina*, gives the Artist a fair Opportunity to deliver her: Let him wind it about two or three Fingers of his left Hand, and slide the right into the *Vagina*, and take another Hold of it as near the After-Birth as he can with his Thumb and Forefinger, and draw it gently towards him. If he finds it loosen, and come away by degrees, he may expect to be Master of it very soon; but if it adheres to the Womb, he must move it to the right and left, and so loosen it without Violence.

How

How well soever the Artist acts his Part, yet he must not omit to order an experienc'd Nurse to stroke the Woman's Belly gently down several times, from the Navel to the *Os Pubis*. The Patient in the mean time may blow strongly into one of her Hands shut: She may likewise hold her Breath, that her Breasts being fill'd with Air, may press the *Diaphragm* downwards, and consequently the Bottom of the Womb. Lastly, She may strain as if she were going to stool, and put her Finger into her Throat to make her self vomit. All these Methods very often do good, and therefore are by no means to be neglected. Chap. 5.

But shou'd the After-Birth not come away when all this is done, we must not grow impatient; for Half-Hours, and whole, sometimes pass before it comes: And 'tis remarkable, that it adheres very closely in those whose Blood is thick and viscid, who are great Eaters, and use little Exercise.

If the Navel-String is pull'd rudely, or with too great Force, 'tis apt to break; which makes the Extraction of the After-Birth very difficult, great Floodings often ensue, or the Bottom of the Womb is brought down with it, which often occasions the Death of the Mother.

When the Burden is come away, it must be laid in a Dish, to be seen and examin'd by every one present; for should the Surgeon forget this Circumstance, and any Accident supervene while the Woman lies in, the good Women would not fail to attribute it to some part of the After-Birth remaining in the Womb.

So soon as a Woman is delivered, several Doubles of warm Linen-Clothes must be laid on the Privy Parts: She must be order'd to bring her Thighs together, and to stretch out her Legs.

Legs, a Coverlet extraordirary must be laid on the Bed, that she may be kept warm, and she must be left to take Rest, which will be very sweet and comfortable to her.

If the Surgeon suspects that the *Parts* have suffered much from the largeness of the Child, especially if 'tis her first, he will do well to apply a Cataplasm of Eggs and Oil of Walnuts mix'd and boil'd up together and spread upon Lint, and over it Cloths several times doubled, to keep it on the Parts.

A great many Women, soon after delivery, take Syrup of Maiden-hair, Oil of Sweet Almonds, and the Juice of an Orange mix'd, fancying that they mitigate their Pains, and promote their *Lochia*, or Cleansings: others take Jelly-Broth, made with a piece of Beef, or part of a Leg of Mutton, a Partridge, and some Beets. I prefer the Jelly-Broth, because the Woman wants things to nourish and strengthen her; whereas the other is a Medicine, and a very disagreeable one too. During the two or three Hours that the Woman remains in her Palate-Bed, that the Impurities which flow from the Womb may be the more conveniently discharg'd, her ordinary Bed is got ready, such Linens as are proper are put upon her, the Parts that have suffer'd are dress'd, her Palate-Bed is brought close to her ordinary one, a long piece of Cloth is put under her Back, two Persons lift her carefully into that Bed, in which she remains all the time she lies in.

There are some, who in consideration of the great Evacuations that sometimes happen to Women newly laid, will not allow them to sleep for some Hours; the Queen was treated *so* in her last Child, and I had the honour to talk to her and divert her from Sleep for the first four

four Hours. However, I believe that there's no better Reason can be assign'd for this Practice, than for that of keeping People awake for some time after they are let blood. Chap. 6.

## CHAP. VI.

### *How to deliver a Woman when the Navel-String is broke.*

THE Navel-String breaks so often when 'tis neither the Fault of the Artist nor Midwife, that it ought not to be imputed to them, except the precise Reason of its breaking through their Unskilfulness or Rashness can be pitch'd upon. And we have daily Instances of Womens miscarrying, of the Navel-String's breaking, and of the After-Birth's remaining in the Womb, before she calls for Help.

In the first Months of Pregnancy, in Women that are of a sanguine Complexion, a greater quantity of Blood is brought to the Womb than is necessary for the Nourishment of the *Fœtus*, that is then very small: this Blood being extravasated, Clods or Coagulations of it coming away, bring the *Fœtus* along with them, and break the Navel-String, which is then but very weak; but the After-Birth adhering firmly to the *Uterus*, remains in it till 'tis entirely loosen'd and separated from it, by Floodings, which cease not till this extraneous Body is happily expell'd. Women, besides, are apt to miscarry by Falls, Hurts, and a great many other Accidents, and to bring forth without Help, because they expect no such thing so soon; and when they have dropt the *Fœtus*, and there's no body at hand to *deliver* them,

them, 'tis not to be wonder'd at, that the Navel-String, which is far from being so strong as at the end of nine Months, should break, tho the Burden comes not away.

When a *Fœtus* happens to die in the Womb, whether naturally or by some Accident, the Mother very often is not deliver'd of it immediately; and as it must needs putrify *there* in proportion to the time that it is retain'd, so must the Navel-String *also*, which being half rotten when the Woman is to be deliver'd, breaks before the After-Birth can be brought away.

Tho a Woman's Labour is natural, and to the full time, yet the Infant very often has the Navel-String so winded about its Neck, or some other Part, that as it comes into the World, it pulls it so hard, that it either breaks, or is so weakned, that when the Artist or Midwife lays hold of it, in order to fetch away the *Placenta*, it breaks, and the Surgeon is blam'd; tho he ought never to be treated so, but when he pulls the After-Burden with too great force, before it is separated from the Womb.

When a Woman's Delivery is attended with Flooding, 'tis a sign that the *Placenta* is loosen'd from the Womb, in whole or in part. When a small Flux of Blood only accompanies it, it shews that it has not been long separated; but when the Flooding is considerable, we may depend upon it, that some time has pass'd. And in the last place, if there's no Flux of Blood when the Child is born, 'tis evident that the *Placenta* adheres every where.

But whether it is or is not, whether the Woman miscarries at the end of two or three Months, or afterwards, or goes her full time, the Artist ought to deliver her; and the sooner the better: for 'tis upon such Occasions as this that he must give

give convincing Proofs of his Conduct, Under- Chap. 6.
standing, and Skill.

If the After-Birth, in an Abortion at the end of two or three Months, comes not away, 'tis not worth while to be concern'd at it, for it is not big enough to occasion any mortal Symptoms; the only thing that's troublesome and unacceptable, is the Uneasiness of the Woman, who longs to be *deliver'd*, and will not be persuaded by all that the Surgeon can say to her, that her Life's in no danger.

'Tis true, that she has little Pains, which come now and then and fatigue the Womb, and put it upon Efforts to expel this useless and extraneous Body; but when these Pains cease, she may be assur'd, that the After-Burden is entirely loosen'd, and that it will come away of its own accord, when she little thinks on't; for it frequently falls into the *Close-Stool* or *Chamber-Pot*, without the least Pain to her: And therefore in Abortions which happen before the end of three Months, let us leave this part to Nature, who will take care to ease and relieve herself.

But in Miscarriages after that Period, if the Navel-String is broke, and the After-Birth stays behind in the Womb, be the Cause what it will, it must be brought away with all convenient speed, in prevention of most terrible Symptoms which may supervene and do frequently appear.

In order to this, the Artist having pair'd his Nails very close, and anointed his right Hand with Oil or Butter, must introduce it into the *Vagina*; then thrusting two or three Fingers into the internal Orifice of the *Uterus*, let him dilate it gently, and so open a Passage for his whole Hand, that it may reach the bottom of the Womb, where he will find the After-Burden; which he may easily distinguish, if he has but the smallest

smallest taste of Anatomy, or understands any thing of Midwifery, which he is suppos'd to make Profession of. If the *Placenta* is entirely loosen'd, let him lay hold of it, and bring it away; but if it adheres to the Womb, let him separate it skilfully, sliding the side of his Hand betwixt both, which he may sometimes do very easily: however, should it adhere firmly, he must neither be discourag'd, nor make too great haste, but separate them gently and slowly, taking care that he hurt not the Womb.

*Mauriceau* thinks it more adviseable to leave some part of the After-Birth in the Womb, which in all likelihood will come away with the Cleansings, than to pull and hale the Womb too much, upon which a dangerous Inflammation may ensue. But in another place he tells us the sad Consequences of suffering any part of that extraneous Body to remain *there*. He brings several Instances of it, and amongst the rest, *that* of the Keeper of *St. Cosme*'s Wife, who could not have liv'd two Hours had she not been entirely *deliver'd*. It is certainly the Interest of the Artist to use his utmost Skill to fetch it all away, and make the Assistants and others present sensible of it, that the good Women may not have it in their power to reproach or injure him.

Should the Navel-String break by any Accident, when a Woman brings forth about the end of nine Months, the After-Birth may be brought away without much difficulty; for 'tis easy for the Surgeon to introduce his Hand into the Womb out of which a big Infant is but just come. He must therefore do it forthwith, and bring away the After-Birth, and then the Woman will be instantly *deliver'd*, and will suffer no more than if it had been drawn forth by the Navel-String.

But

But in order to the Artist's delivering a Woman so readily, he must be present when the Child is born; for when Midwives lay Women, they rarely call for Help at first, but hope that the After-Birth will come away of its own accord, or that a Glyster, or some other Medicine, will do the business; and put off sending for a Surgeon as long as they can, that it may not be said, that they were oblig'd to call another to do their Work, and put the finishing Hand to what they had begun, and proceeded so far in. In the mean while the Womb contracts and shuts, and the Surgeon finds it much more difficult to do his Office, than it would have been had he been call'd sooner.

If the After-Birth, by its too long stay in the Womb, begins to putrify, which is ordinarily the case when a Child has been dead in it for some time, we must inject with a Decoction of Barley and Agrimony, and Honey of Roses, which will bring off whatever incommodes the Womb, and will mundify the Parts. For this purpose, we must make use of a Woman's Syringe, that has a crooked Pipe, bor'd in the end, like a Watering-Pot.

CHAP.

## CHAP. VII.

### *How to know whether the Infant in the Womb is dead or alive.*

WHEN a Surgeon is desir'd to give his Opinion concerning the Child's being alive or dead in the Womb, 'tis of such consequence to the Mother, but more especially to the Child, that he must say nothing till he has enquir'd into every Circumstance; and even *then*, must by no means be positive in giving the *Prognostick*, since the Judgment that he makes, is founded in part upon what the Mother tells him, who very often mistakes, and gives a wrong account of things.

The Surgeon is ordinarily consulted on this Head, when a big-belly'd Woman has had a Fall, has strain'd herself, or thinks that she has receiv'd some Hurt, and that 'tis not with her as it was before. His Opinion is also ask'd, when a Woman is sick, and the Physicians want to know whether the Child is dead or alive, before they prescribe for her. Lastly, he is requir'd to speak when a Woman hath been very long in Labour, when her Pains are weak and bad, and her Strength diminishes apace: for then, as there are thoughts of bringing away the Child with Instruments, so 'tis highly necessary that we should be assur'd that it is dead, before we proceed to this extreme Remedy. On all these Occasions, Timorousness is more pardonable than *Temerity*: let the Artist suspend his Judgment for some time, and he will seldom have cause to repent of it; for

for a little time very often discovers to us the Truth, shews us our Way, and helps us out. Ch. 7.

A Child's stirring in the Womb, is the surest sign of its being alive; but it does not therefore follow, that if it has not stirr'd for some time, it is certainly dead. Some Women have declar'd to me, that they have not felt their Children stir for several Days, and whole Weeks, tho they were happily deliver'd of them alive in due time. A *Plethora*, or too great a quantity of Blood, is sometimes the reason why the *Fœtus* stirs not; for after Blood-letting it very often begins to move as before, and the Mother is sensible of it.

When the Waters in which the Child swims, break soon in Labour and run off, the Parts of the Womb bear with too much Weight upon the Infant, and compress it so, that it cannot move or stir, as before; and the Mother being very much frighted, takes it to be dead, which makes her Labour more lingring and tedious. It is the Surgeon's Duty to shew her the reason of this, and to put her in heart again; and for his own Satisfaction, to run his Hand gently into the Womb, and touch the Navel-String: for if he feels the Pulsation of the Umbilical Arteries, he may depend upon it that the Infant is alive; or if he meets with the Child's Hand, and feels its Pulse, he may make a sure Judgment: and in case his Hand passes over its Face, if he puts his Finger into its Mouth, and finds it shut upon it, or stir its Tongue as if it would suck, he may be assur'd that it is alive.

But on the contrary, a Child may be known to be dead, if it makes not the least Motion; if like a heavy Lump of Flesh it falls down into the lowest Part of the *Hypogastrium*, and if like a big Ball it rolls or tumbles always to that side which the Woman lies upon;

if the Child's Head feels soft, and its Sutures are entirely separated; if the Woman is very weak, and faints often; and if cadaverous and stinking Humours flow from the Womb; if the Mother's Complexion is of a leaden colour; if her Eyes are sunk in their Orbits; if her Countenance is dejected and languishing; if her Breasts flag; if her Belly, instead of growing bigger, grows less; if her Breath stinks, and if after the Waters are broke, there are no Signs of an approaching Delivery.

All these are probable, but not sure Signs of a dead Child; for even that of stinking and cadaverous Humours flowing from the Womb, which one would be apt to take to be the surest, may impose upon us: for I have known some Women bring forth living and healthful Children, who all the time they were with Child, had the Whites, and discharg'd a slimy Humour, and a green and black *Serum*, which stunk prodigiously. The Infant sometimes voids a black Humour call'd *Meconium*, which is congested and laid up in the Intestines while 'tis in the Womb. This Humour being mix'd with the Waters, makes them of a black colour, and to smell strong; which inclines those who understand no better, to conclude that the Child is dead: but the Surgeon or Artist knows very well, that when the Infant, instead of its Head, presents its Breech, and makes Efforts to come into the World in that Posture, the *Meconium* is press'd out at the *Anus*, which leads the Ignorant into this Mistake.

Besides, when a Woman is big with Twins, sometimes one is dead and the other alive, which gives different Indications: for as fetid Humours flow from the one, so the other by its stirring assures us that it is alive. There are likewise Instances of it, that a dead Child has remain'd several

veral Months in the Womb, and has not come away till the Mother was in Labour of the living one. Chap. 8.

If the Surgeon, by attending to the Signs now laid down, is assur'd that the Child is dead, he must bring it away as soon as possible; which is no easy Task: for when a Woman is in Labour, if the Child is alive, and has any degree of Strength, he contributes chiefly towards the Delivery, and breaks open the Prison-Door himself. But 'tis quite otherwise *here*; for all depends upon the Efforts of the Mother, and the Conduct and Skill of the Surgeon.

## CHAP. VIII.

### *How to deliver a Woman when the Child is dead.*

AS a Surgeon can expect no Assistance from a dead Child; so neither can the Mother, whose Pains in this case are weak and slow, and who sometimes has none at all, contribute much towards her own Delivery, but must be obliged to the Artist for it: who, if the Child presents right, must move and quicken her Pains by strong and sharp Glysters, which irritating the Intestines, excite Throws that facilitate the Expulsion of the dead Child. Purging Potions are improper, for if they are gentle they signify nothing, and are old Womens Remedies only; if on the contrary they are strong and violent, they are dangerous, and may have dreadful Consequences, and even Death itself may ensue upon taking of 'em.

If Glysters have not the desir'd Effect, the Surgeon must bring the dead Child away as soon as possible: and in order to this, place the Woman on her Bedside, as is done in difficult Labours. If she has not made Water for a considerable time, let him introduce a Catheter into the Bladder to evacuate the Urine; then running his right Hand into the Womb, if the Child's Head sticks not too fast in the Passage, let him thrust it back; and sliding the same Hand under its Belly to find the Feet, let him turn it, and draw it forth by them; and proceeding according to the Directions given in the Chapter that treats of Children that present with the Feet foremost, let him take an especial care that he pull not the Head, if 'tis lock'd in the Passage, with too great force, lest he sever it from the Body.

But notwithstanding all the Precautions that the most expert Surgeon can take, if the Head, because of the great Putrefaction should be separated from the Body, the Artist must with one Hand fix a Crotchet in the side of it, and with the other bear it up against the Crotchet, and instantly draw it forth.

But when the Head is so far advanc'd and engag'd in the Passage, that it cannot be thrust back without doing great Violence to the Woman, 'tis better to bring it away than to torment her. And seeing he cannot take hold of the Head with his Fingers, because it is round and slippery, he must take a pointed Crotchet and run it up as far as he can, betwixt the Womb and the Child's Head, keeping the Point towards it; then let him fix it in some Bone, so that it cannot slide, and draw forth the Head, keeping the Fingers of his left Hand on the side opposite to the Crotchet, to disengage the Head the more easily, and draw it out of the Passage in a strait Line. If there's

there's occasion, the Surgeon may strike another pointed Crotchet into the opposite side of the Head, and fetch away the dead Child with the two more equally, tho it is very big. If when the Head is born, the Shoulders cannot pass, the Surgeon must slide two or three Fingers of both Hands under the Armpits, and so bring away the Child. Ch. 8.

When the Passage cannot be sufficiently dilated, or some Parts of the dead Child are excessively large, the Surgeon is obliged to cut it in pieces with a Crotchet like to a crooked Knife, or that hooked one with which Gardiners prune their Trees and Shrubs. This is the ordinary and receiv'd Method of extracting a dead Child. *Mauriceau* invented an Instrument which he calls *Tire-tête*, or *Pull-head*, which he thinks incomparably better than the Crotchet, and directs it to be driven into the *Sutura Sagittalis*. The Reader may see the Figure of it, with *that* of the Bistory, with which he makes Incision upon the Head, for its taking more convenient hold of it, in his Book of Midwifery; which teaches the way of using it, which I understand not, having never seen it try'd.

But we must by no means use either it or the Crotchet, till we are very sure that the Child is dead; for how dreadful a Spectacle must it be, to see a Child fetching its last Breath, brought away after such a manner! Let us therefore make use of our Hands, and not of Instruments, but when there's no other way to save the Mother's Life, and bring the Child away.

## CHAP. IX.

### *Of Laborious and Difficult Deliveries.*

WE have already treated of Natural Deliveries: in this Chapter we shall discourse of Difficult ones, and in the next of those that are Unnatural.

By Laborious or Difficult Deliveries are meant those which give more labour and trouble to the Mother, the Child, and the Artist, than natural ones do. A laborious Delivery partakes of the natural and unnatural one; for the Beginning is favourable and promising, the Child's Head comes first, its Face is towards the *Rectum*, the Waters gather, the internal Orifice of the Womb offers to dilate, the Throws are repeated, and grow stronger and stronger; but after all, such Symptoms emerge, as to the Sorrow of all concern'd, shew it to be a laborious Delivery, instead of a natural one.

Laborious or difficult Deliveries are owing either to the Mother, to the Child, or the Surgeon. On the part of the Mother, they are either the effect of a bad Habit of Body, or wrong Structure and Conformation of Parts, particularly that of the Womb, or of the Passions of the Mind, or of some unforeseen Accidents.

If a Woman is too young, and brings forth about fifteen or sixteen Years of Age, and hath not attain'd to her full Stature and Growth, 'tis not to be expected that the Bason should be so large, or the Passage so wide, as if she was twenty-five Years old. On the other hand, if she's too

old,

old, and brings her first Child after Forty, the Parts do not stretch and dilate so easily as they wou'd, were she about twenty five Years of Age only; and I am apt to think, that if the Surgeon were to chuse, he wou'd rather *lay* a Woman of fifteen than one turn'd of forty. Chap. 9.

In Women that are very fat, the *Vagina* is too strait, and scarce capable of the Dilatation that is necessary; and in those who are very lean, the Ligaments of the *Os Coccygis*, which are too dry, do not stretch, and give way so readily in time of Labour.

Little squat Women and those who are mishapen, have, for the most part, difficult Labour; but especially such as are hunch-back'd, whose Lungs are so straiten'd and compress'd, that they cannot thrust the Diaphragm so far down as is necessary in time of Labour. Crooked Women, who have one Hip higher than the other, are also of this number; for the Bason form'd by these Bones not being exactly round, the Child is oblig'd to make very great Efforts before he can get out of it. But those who have had the Rickets when young, and whose Hip-Bones did not grow hard for a considerable time after they were born, are most of all to be pitied; for the Bason in them is ordinarily so strait, that 'tis impossible for a Child to get over the Bar, or open a Passage for it self: And we now and then see that such Women, after they have been in Labour for several Days, and have suffer'd most terrible Pains, cannot bring forth, but die at last.

A difficult and laborious Delivery often proceeds from an evil Conformation, or some accidental Indisposition of the Womb: If its Neck is too strait, or callous from a Cicatrice or Scar that remains after an Ulcer in the Part, which

likewise contracts it, and makes the Passage straiter; if proud or spungy Flesh grows *there*; if its internal Orifice is compos'd of such solid and compact Fibres that it can't easily dilate; if a Woman was born imperforated, and has had too small an Incision made upon the *Part*; 'tis evident that a Delivery more or less laborious and difficult is to be expected, and necessarily follows.

Which is likewise the Case, if the Membranes are so weak that the Waters break too soon, and leave the Womb dry, or are so strong that they cannot be broke; if there's a *Mole*; if the Navel-String comes first, which intercepts the Circulation of the Blood betwixt the Mother and the Child; or if the After-Birth presents first, upon which a dangerous and great Flooding ordinarily ensues. Passions of the Mind, such as Fear and Sorrow, do also retard Delivery, and make it more difficult: Some weep all the while, and are afraid of the Pain, others of Death: Some are so indolent and peevish, that they won't take the trouble to encourage and make their Throws good and effectual: Others fret, and are impatient, and expect that the Child should be brought away by the Surgeon with as much Ease, as he pulls his Case of Instruments out of his Pocket: Others again cry out not only when their Pains are upon them, and are considerable, but all the time; whereas they ought not to cry out but when they have Throws, for then 'tis of some service to 'em.

A great many Accidents make a Delivery laborious: If the Child comes before the time; if the Woman falls, or is hurt; if Floodings supervene, or Faintings or Convulsions; if the Woman has a Stone in the Bladder, or is grievously troubled with the Piles; if she has an *Exomphalos*, or Navel-Rupture, and therefore dares not strain

strain hard; if she has a Fever, or any other great Distemper, her Delivery must be laborious and difficult. As to the Retention of hard Excrements in the *Rectum*, which *Mauriceau* makes so great a-do about, the Head of the Child is sure to press them out; and 'tis not in the power of the Mother to retain them; neither can they stop the Child in the Passage, or make its Egress difficult. They are unacceptable and noisome no doubt to the Woman, the Surgeon, and the Assistants; but that's all. Chap. 9.

Delivery proves difficult also on the part of the Child, if it is very big; if it has a *Hydrocephalus*, or Dropsy of the Head; when its Shoulders are broad; when its Belly is swell'd very much by the Dropsy; when it is monstrous; when Twins are tied together; when its Face is turn'd upwards; and lastly, when the Navel-String is twisted about its Neck.

As we ought to make choice of a skilful and experienc'd Surgeon in all these Cases of Difficulty and Danger, so it is his Business to find out proper Remedies, and use the most effectual Methods to procure for his Patient the most speedy and happy Delivery.

If a Woman is too young, old, or lean; if the the Mouth or Neck of Womb are hard and callous, let the Parts be anointed and soften'd with Oil or Butter, or emollient Decoctions; if she is mishapen, chuse a convenient Posture for her; if she is little and thick, make her walk up and down the Room, and suffer her not to be put to bed till the Waters are broke, and there's a Necessity for it.

If she is fanciful, and has an odd and extraordinary way of thinking, the Surgeon must endeavour to give her Thoughts the proper Turn: If she is timorous, she must be encouraged; if

she's

Book III. she's afraid of Death, she must be told that she has no mortal Symptoms; if she is childish, and dreads her Pains, she must be inform'd that they are unavoidable, and that others endure the same, and greater than hers; and if thro Modesty she will not suffer a Surgeon to lay hands on her, she must be humour'd, and allow'd to rely on the Care and Skill of a Midwife.

If a Delivery is laborious and difficult because of some unforeseen or extraordinary Accident, a Remedy must be found for it, if possible; if she has any great Distemper, an able Physician must be call'd; if she has had a Fall, let her be blooded, and put to Bed; if she has Floodings, let her be delivered immediately; if the Bladder is too full, let it be emptied by introducing a *Catheter*; if she's troubled with the Stone, there's no Remedy but Patience, for nothing can be attempted at present; if she has the Piles, let the Parts affected be anointed with *Pomatums*; if the Navel-String comes out, let it be put up again immediately; but if the After-Burden comes away first, take hold of the Navel-String, tie it, and cut it, and deliver the Woman as soon as possible. If the Membranes break not of their own accord, the Artist must tear them with his Nails; but if on the contrary the Membranes being broke, and the Waters let out too soon, the Woman's Pains and Throws cease, they must be excited by Glysters. *Mauriceau*, in this Case, orders an Infusion of two Drams of *Sena* in a Glass of Fountain-Water, to which the Juice of a sour Orange is added, to be instantly given to the Patient; and assures us he has seen very good Effects of it.

The Difficulties which arise on the part of the Child are likewise very considerable: If it has a Dropsy of the Head or Belly, the Parts must be

be pierced with a proper Instrument to let out the Waters: If its Face is turn'd upwards, we must not try to put it back again, a few Throws more will probably bring it away: If the Navel-String is twisted about its Neck, there's no undoing of it till the Head is born: If it is too big, or monstrous, the Surgeon must patiently wait till the Passage is gradually open'd, and sufficiently dilated by repeated and strong Throws; but if after some Days Sufferings the Delivery advances not, and both the Pains and Mother grow weaker and weaker, he must bring away the Child with his Crotchet, that the Woman may not die with it in her Belly. Ch. 10.

I would not advise the Surgeon in this nice and dangerous Case to proceed to the Operation alone, but to acquaint the Relations with the Danger that the Woman is in, and the Necessity there is of making use of this Instrument, and beg that one of his Brethren may be joined with him, that they may agree upon Methods for saving the Life of the Mother, who must inevitably perish, if the proper Help and Assistance is not given her in time.

## CHAP. X.

### *Of Unnatural Labours.*

HAVING treated of Natural and Difficult Labours, we proceed to the Consideration of Unnatural ones.

Some natural Labours are so easy and favourable, that the Woman has no occasion either for Surgeon or Midwife, but drops her Child

Child upon the Quilt, and has courage enough to pull the Navel-String gently, and bring away the After-Burden her self. This has inclin'd some Authors to think that all other Women ought to do the same, and, in defence of their Opinion, to quote those poor Women who being at work in the Fields, or following Camps, take up their Children so soon as they are born, and march with Armies, or do their ordinary Business.

But tho some Women have a speedy and safe Delivery, and are able to endure considerable Hardships soon after, a great many others are subject to Floodings, a *Prolapsus* or falling down of the Womb, or a Suppression of their Cleansings, which very often kills them; and therefore it is the part of discreet Women to be careful of themselves, and not to credit those Authors, who have the assurance to say, That of a thousand Women that are brought to-bed, there's scarce one that needs the Help of a Surgeon or Midwife.

Tho there are some Women who never once cry out or complain when they bring forth, but own, on the contrary, that they feel no Pain; yet this is no general Rule, and shews only that Nature has been very kind to them in particular: which made a Lady of the first Rank say, That when it happen'd so, 'twas well for the Wife, but the worse for the Husband.

In difficult Labours Nature often does a great deal; but in unnatural ones there is nothing to be expected from her; it is the Surgeon alone that must do the Business. The Life of both Mother and Child is *then* in his hands, and he has a fair Opportunity given him to shew his Skill and Dexterity in turning the Child in the Womb, and bringing it into the World; where-

as

as without his Assistance, it can never see the Light. Ch. 10.

Labours are said to be unnatural when any other Part of the Child presents but the Head; and they are very frequent, and of so many different sorts, that 'tis not easy to give the Detail of them: we shall therefore in the ten or twelve following Chapters only lay before you some of the worst Situations that a Child can possibly be in, and the Means of helping Women in these Circumstances; and hope that the Surgeon will be able to find out a Method for himself in Cases that are more easy.

Some Authors take the *laying* or *delivering* of a Woman to be one of the easiest Operations in Surgery: But they are not only mistaken about the Easiness, but the Manner of doing it, imagining that the Parts are expos'd to the Surgeon's View. But were this true, he would not be put so hard to it, as he often is. *Defforges*, one of the most expert Man-Midwives in his Time, was blind; which shews that our Sight is of no great Use in delivering of Women. And tho it is the most difficult and dangerous Operation in Surgery, and the Life of both Mother and Child is often at stake, yet we are oblig'd to rely entirely upon our Sense of feeling in performing it; which we do in no other Case whatsoever.

When a Surgeon comes to a Woman in Labour, it is impossible for him always to tell at first whether the Labour will be natural or not; for tho he touches the *Part* when her Pain comes, and finds the internal Orifice of the Womb somewhat dilated, the Waters that are gathering interpose between him and the Infant; and tho he's sensible of its Strugglings, yet he cannot tell which Part presents, but is forc'd

to

Book III. to suspend his Judgment till the Waters are broke.

When the Head comes first, the Pains are brisk and strong, and come thick, the Membranes are very much stretch'd, and break soon. But when the Throws are weak, and come at great Intervals, and the Waters are long of breaking, the Surgeon must expect an unnatural Labour: and in truth, they are no sooner let out than the Infant follows, and he is surpriz'd to meet with a Hand, a Foot, or some other Part, instead of the Head; which gives him no small Trouble, and which he must forthwith remedy, if possible.

If this happens when a Surgeon is present, 'tis well both for the Mother and him, because he will not give the Child time to descend into the Passage, but put it back before it is lock'd in it: But if a Midwife only is to *lay* the Woman, not knowing how to behave and act in such a Circumstance, she is oblig'd to call for Help, and before the Surgeon can come, the Child advances; which gives much more Trouble both to the Mother and him, than if he had been present at first.

But whether a Midwife or Surgeon is employ'd in an unnatural Labour, the Woman, whose Life is in danger, ought to be deliver'd as soon as possible. We shall lay down some general Rules for doing this, and give particular ones in each Chapter a-part.

Now the Surgeon, before he proceeds to the Operation, must wisely consider whether the Woman has Strength enough to endure it, or not: If her Pulse is weak, and intermits; if she's pale; if her Looks are dejected; if her Speech is faint; if the extreme Parts of her Body are cold; if she often faints, and has cold Sweats, and

and has Convulsions, with Loss of Sense, Death for the most part is not far off. Ch. 10.

A great many Women, however, who have had most of those terrible Symptoms, have been happily preserv'd by the friendly and seasonable Help of the Artist; and therefore, whatever the Case is, we must not absolutely despair of saving a Woman's Life: We see them either die, or in a fair way of Recovery, in the space of a quarter of an Hour. Nature, who has imposed upon Women the hard Fate of bringing forth, did it not for their Destruction, but to people the Universe. 'Tis therefore her Business *chiefly* to preserve those whom she hath subjected to this Law; and truly we often see her redouble her Force, and snatch them out of the Jaws of Death, when assisted by Art; which on many Occasions is of excellent Use to her.

The Surgeon, however, must not reckon too much upon the Kindness of Nature in this Case; he is not to expect that she will work a Miracle in behalf of the Patient: And therefore, when a Woman is in such a dangerous Condition as we have describ'd, he must acquaint the Husband and Assistants with it, and recommend to her the making her Peace with God, and regulating her worldly Affairs; he must get every thing ready, and persuade her to allow her self to be laid immediately, relying entirely upon God for the Success of the Operation.

Instances of Women who died under the Operation, or very soon after it, must by no means discourage the Surgeon; neither must the impertinent Discourses of gossipping Women prevail with him to abandon a poor helpless Woman to certain Death: He is oblig'd in Honour and Conscience to do all that's in his power for her; and then whatever comes of it, being conscious to himself

Book III. himself that he has done his Duty, he needs not value any Reflections that are thrown upon him by ignorant or malicious People; for 'tis certain that all discerning Persons, and Men of Probity, will take care to do Justice to his Merit.

The Surgeon in the next place must endeavour to convince the Woman of the absolute Necessity of her accepting of his Help, and to persuade her to put her self into his hands; but must take care at the same time that he fright her not. He will do well, among other Things, to represent to her that the Operation is nothing so painful as she may imagine; and that she is oblig'd in Conscience to suffer it, to save her own Life.

If a Woman has *gone* only four or five Months, or less, and if the Child presents not right, it is needless to turn it; for being then but very little, it may be expell'd, whatever Situation it is in: and therefore we must leave this to Nature, who will not fail to ease her self of a mere Burden; which will be no hard Task, if a Woman has brought Children before to the full time: for the Womb having been sufficiently dilated, to give Passage to a Child of nine Months, it must needs open easily, and give way to a small Abortive. But if the Woman has not brought forth before, she must expect to suffer more, because the internal Orifice of the Womb dilates not so readily at first. It is better, however, still to commit the Delivery of the Child entirely to Nature, than to turn it; which can't be done, if it's the first Child, without Violence, and putting the Woman to a great deal of pain.

Tho some other Part of the Child instead of its Head presents, yet the Surgeon must not always instantly proceed to the Operation: For example, If after the Waters are broke, a Hand should come first, he ought to try whether the internal

internal Orifice of the Womb is so far dilated that he may introduce his Hand into it, and turn the Child, and bring it away by the Feet, or not. If it is not dilated sufficiently, he must wait patiently till repeated Throws do the Business. But if he can introduce his Hand, he must lose no time, but *lay* the Woman immediately, before the Child is lock'd in the Passage, which makes the Delivery abundantly more difficult and laborious. Ch. 10.



When the Surgeon perceives that there's an absolute Necessity for delivering the Woman, he must lay her on her back, a-cross the Bed, with her Legs hanging down. If it is necessary to put the Child back, or turn it, her Head must lie as low as her Breech: But if he resolves to bring it away in the Situation it is in, he must place her as we have directed in natural Labour, with her Head and Breast a little rais'd, that she may breathe the more easily, to favour and promote the Exclusion of the Child, by bearing down when he bids her. Her Thighs must be open'd wide, and her Legs folded so, that her Heels may almost reach her Buttocks. She must be kept in this Posture by two strong Persons; a third must be plac'd behind her, to hold her Shoulders and Arms, to prevent her moving backwards while the Surgeon turns the Child, or sliding down when he brings it away.

The Surgeon having put a Napkin or Towel about his Waste, must sit down before the Woman, on a low Stool, as near to her as may be, that he may give her the necessary Assistance with the greater Convenience and Ease, both to her and himself, and take a Nap now and then in the Intervals of her Pains. He must not forget to cover her Legs and Thighs with a Blanket or

Sheet, for Decency's sake, and to prevent her catching Cold.

Some Authors wou'd have a Woman bound, that the Surgeon may do his Office with the greater Certainty: But 'tis very ridiculous to offer to treat a Woman *so*; has she not enough to complain of, tho she is not bound with Cords, like a wretched Criminal? Is it possible for her to get away? Is it to be thought that she will refuse to do whatever the Surgeon proposes to her, in order to her being safely deliver'd? For shame, let us talk no more of Cords: Three strong Women holding her fast, as we have directed, will do the Business very well.

The Surgeon ought to have Butter and Oil by him, and Thred and Sciſſars; and must perform the several Operations in unnatural Labours, as we shall direct in the following Chapters.

## CHAP. XI.

### *How to deliver a Woman when the Child's Feet present first.*

OF all unnatural Labours, this is the least dangerous, and most easily manag'd; and in the hands of an able Surgeon, is often more speedy, and less painful, than the natural one, in which the Head, that comes first, by striking with great Force against the internal Orifice of the Womb, after a great many Throws and redoubled Efforts, dilates and opens it. But if as soon as the Waters are broke, the Feet of the Child

Child present, if the Artist draws them gently forth, the Mouth of the Womb necessarily dilates, and opens a Passage *first* for the Legs, next for the Thighs, and at last for the whole Body; and the Woman is quickly and safely deliver'd, without much Pain. Ch. 11.

When the Waters are broke of their own accord, and let out, they make way for the Descent of the Child, and some part or other of it falls directly against the internal Orifice of the Womb; and if it is the Feet, or one Foot only, the Surgeon must neither attempt to put it back, nor turn it, but must bring it away by the Feet, as we shall direct him by and by.

If a Woman's Pains are inconsiderable, and come at great Intervals, we ought to wait till the Waters break of themselves; but if they are sharp and frequent, and if the Membranes, like a great Bag full of Water, choke up the internal Orifice, the Surgeon must tear them with his Nails. And then if the Child comes right, its Head falls exactly into the Orifice, and hinders a great part of the Waters from running off, which, after the Child's Head is born, facilitates Delivery very much. But if any other Part happens to stop the Passage, all the Waters are let out by little and little, and the Parts become too dry; which makes Delivery more laborious and difficult.

When the internal Orifice of the Womb is sufficiently dilated, tho the Hand may be introduc'd into it, and the Child turn'd with abundance of Ease to the Surgeon; yet, if either the Head or Feet come first, since they are the two most natural and favourable Situations, he ought by no means to give either Mother or Child the Pain of changing them.

Book III. So soon as the Waters are broke, the Artist having pull'd his Rings off his Fingers, and pair'd his Nails very close, and anointed his Hand with Oil or Butter, let him introduce it into the *Vagina*; and if he finds not the internal Orifice sufficiently dilated, let him open it *gently* with two or three of his Fingers; and if the Child's Feet come first, let him draw them forth without Violence, the other Parts of the Body will follow pretty easily, and in a little time the Woman will be safely deliver'd: but if one Foot only presents, let him bring it into the *Vagina*, and consider well whether it be the right or left; that sliding his Hand along the inside of the Leg, he may the more easily find the other, which is not difficult. When both are found, let him bring them close together; and having wrapt them in a warm Napkin, let him gently draw them forth, and, as we have already observ'd, the rest of the Body will follow.

*Mauriceau* begs of us, when we have hold of two Feet, to make sure that the second be not the Foot of another Child. But since no such thing can happen, he might very well have sav'd himself the labour of giving this Caution. 'Tis certain, that each Child that is in the Womb at one and the same time, has a separate and proper Membrane in which it is contain'd; that these Membranes break one after another; and that when there are Twins, whilst one is in the Passage, the other holds its first place, and has not made its descent; and that they neither come together, nor can the Surgeon lay hold of one instead of t'other.

Some tye the Foot that is found to the Mother's Thigh with a Ribbon, that they may not lose it, while they search for the other, and have it to seek again. They fancy that the Child

can

can draw back its Foot: but the Mother's strong and repeated Efforts, and Bearing-down, not only prevent this, but advance the Delivery; and therefore this Direction is of no use. Ch. 11.

Whilst we draw one Foot gently towards us, the other for the most part presents; but if it does not, the Surgeon must slide his Hand along the Child's Leg and Thigh to the Twist, and he will surely meet with it. When he has found both the Feet, let him wrap 'em in a Napkin, that his Hand may not slide in the Operation, by reason of the slimy Humours with which the Child's Body is besmear'd and cover'd. Then let him draw the Child forth above the Hips, and bring down the two Arms on the sides of the Body, and pull harder, that the Shoulders which are large may pass; and let him order the Mother to bear down strongly, that while she pushes and he pulls, the Head may instantly succeed, and not stop in the Passage.

*Mauriceau* is of opinion, that if we bring down one Arm only, the other makes the Head lean more to one side than the other; and that consequently it comes not in a strait Line, and is apt to stop at the *Os Pubis*; but if neither of the Arms are brought down, this is effectually remedied: neither is the Head more difficultly brought forth; for the Arms lie upon the Temples or lateral Parts, which are flat. But 'tis no matter whether they are brought down on the sides of the Body or not, for they neither make the Delivery more laborious nor easy.

When the Child's Feet come first, 'tis certain that it hath not turn'd itself in the beginning of the ninth Month, as Children ordinarily do, and that it comes in the same Posture that it always had in the Womb. If its Face is turn'd upwards, and it lies on its Back, which is easily known by

Book III. looking upon its Feet, the Surgeon must by no means endeavour to bring it away, because it is to be expected that the Head will be stopt by the Chin, at the Share-Bone, which gives a great deal of trouble both to the Mother and him, and endangers the Life of the Child; which he must therefore turn gradually as he draws it towards himself, till he lays it upon its Belly with its Face towards the *Rectum*; in which Situation it is not so apt to be stopt by the Bones which form the Bason and Passage: tho if its Head is very big, it cannot easily pass them; and in that case, he must not pull the Body with force, lest he sever it from the Head, which very frequently happens. Another Person must hold the Feet, and pull only when the Surgeon directs it, who must slide two or three Fingers of the left Hand into the Child's Mouth, to bring the Chin lower, and with his right must lay hold of its Neck near the Hinder-head, and bring the Child away gently, with the help of the Person that holds the Feet, who must pull in conjunction with him.

As the Body of the Infant is not to be pull'd rudely, lest we separate it from the Head; so we must not suffer the Child to remain in this Situation long: for if the Woman is not deliver'd in half a quarter of an Hour, the Child must inevitably die suffocated; and the Circulation of Blood by the *Umbilical* Vessels, which are compress'd betwixt the Child's Head and the Bones of the Bason, can no longer be kept up. Which was the hard Fate of one of the Princes of *Piedmont*, in the Year 1695. thro the Midwife's fault. Wherefore, when the Dutchess of *Savoy*, now Queen of *Sicily*, fell with Child two Years thereafter, the King sent his first Surgeon to *Paris* to study Midwifery; who after his return to *Turin*, successfully laid the Queen as oft as there was occasion.

CHAP.

## CHAP. XII.

### *How to bring away the Child's Head when it is separated from the Body, and remains behind in the Womb.*

WE have already observ'd, that if the Child has been dead in the Womb for some time, and is putrefied, that its Head is apt to separate from the Body, tho we pull the Body ever so gently; the same thing happens *also*, if the Passage is naturally too strait, or if the Head is so very big that it can't pass after the Shoulders, by which we endeavour to bring away the Child, and for that purpose employ a great deal of Strength.

If the Head remains in the Womb, it must be fetch'd away immediately; for if we give the Womb time to contract, in hopes that *Nature* will expel it, we may possibly find that all the Strength that the Surgeon and others join'd to him have, is not sufficient to do the business; and the Woman is sure, first to suffer prodigiously, and then die on the spot. The Surgeon must therefore proceed to the Operation without loss of time, so soon as he has got another expert Surgeon call'd to his Assistance, and Instruments and all other things ready that are necessary.

The first thing the Surgeon is to do, after he has put the Woman into the most convenient Posture, is to tie the Navel-String, that the Mother may not be weaken'd by losing too great a quantity of Blood by the *Umbilical* Vein; which must needs happen, seeing the After-Burden still

Book III. adheres to the Womb. The Navel-String must likewise be cut, that the dead Body may be taken out of the way, and be no hindrance to the Operator.

*Mauriceau* has given himself a great deal of needless trouble, in enquiring whether the Head of the Infant or the After-Birth ought to be brought away first. For since they cannot possibly come together, the Surgeon has no Choice to make, but must fetch away that which comes first: and therefore *Mauriceau* has said nothing to the purpose upon this Head. The Surgeon who is to perform the Operation, must put his right Hand up into the Womb till he touch the Head, whose inferior part always presents first; and putting his fore and middle Finger into the Child's Mouth, and his Thumb under the Chin, must take fast hold of the lower Jaw, and draw it out with all his Strength. If the Head is separated from the Body betwixt the first and second *Vertebræ* of the Neck, he may put his Fingers into the hole of the *Occipital* Bone, thro which the *Medulla Oblongata* descends; and if he gets fast hold of it, 'tis odds but he brings it away.

But if these Methods fail, let him introduce his left Hand into the Womb, and in his right take a strong Crotchet that has a long Haft, and sliding it upon his left into the Head, strike it into some convenient part of it, such as one of the Orbits of the Eye, the Hole of the Ear, or *Occiput*; and having fix'd it very well in some solid part, let him with his *left* bear the Head up against the Crotchet, and draw it out with all the Strength that he has, at several times, for 'tis not to be expected that he can do it at once.

But if the Head, from its Figure, turns round, and the Crotchet loses its hold, which frequently happens,

happens, having fix'd the point of the first Crotchet in the hole of the Ear, let an Assistant hold it by the handle, while he drives another of the same figure into the hole of the other Ear; then having drawn forth his left Hand, let him take a Crotchet in each, and if he pulls equally, the Head, which cannot roll or slide, must needs come away, if there's any possibility of it. Ch. 12.

But seeing some Women are so mis-shapen and strait, that the Head cannot be brought away whole, the Surgeon must slide a crooked Knife, conducted by his left Hand, into the Womb; and having cut it in pieces, must fetch it away.

The very thought of this Operation fills me with Horror. But shall a Woman be lost? Are we not oblig'd as *Christians* to do all that's in our power to save her Life? And since this is the only Remedy that is left, is it not our Duty to use it? Tho 'tis certain, that the Woman who endures, and the Surgeon who performs this cruel and terrible Operation, are both very much to be pitied.

*Mauriceau* tells us, that he had found out a more commodious *way* of bringing *away* the Child's Head. He bids us take a Fillet of strong Linen four Fingers broad, and having brought it over the Head, so that it embrace it as a Sling does a Stone, orders the two ends of it to be drawn together, and the Head to be fetch'd away; which he thinks may be done without much Violence. Had he told us, that he had try'd this with success, we must have accepted of what he proposes; but since he has not, all we shall say, is, That it is a pretty Invention, but of no Use; for the thing is altogether impracticable.

CHAP.

## CHAP. XIII.

### *What is to be done when the* Vagina *or Neck of the Womb falls out before the Child.*

SEveral Women are troubled with a Falling-down of the Womb, caus'd by the Relaxation and Extension of its superior Ligaments; which instead of keeping it in the *Hypogastrium*, which is its proper place, allow it to fall down upon the external Orifice, and even to hang out *also*. Those who are subject to this Complaint, are oblig'd to wear a Pessary, to keep up the Womb, which is of a round figure, and resembles a Pudding for the Head of a young Child, with a hole in the middle, against which the internal Orifice of the Womb is so plac'd, that the *Menstrual Flux* is no ways hinder'd, and the Seed emitted readily enters the Womb. Hence it is that those Women frequently fall with Child: and it is remarkable, that they are not afflicted with this descent of the Womb after Conception; for the Womb growing bigger in proportion to the growth of the Child, cannot fall out of the external Orifice, as it us'd to do. But tho they have not this to be afraid of, yet they have more to apprehend from the ordinary Accidents that attend a Big-belly, Labour, and Lying-in.

Such Women when they are with Child, must shun violent Exercise, and must not travel so as to be jolted: they must not walk much; they must not lie with their Head rais'd; they must neither take emollient, sharp, nor purging Glysters;

ters; but if there's an absolute necessity for using *any*, they must be of Fountain-Water *only*. In those that are subject to a *Procidentia*, or Falling-down of the Womb, the *Vagina*, by reason of Pains, straining and bearing-down of the Woman in time of Labour, frequently comes out, chokes up the external Orifice; and being naturally full of large Wrinkles, these Wrinkles swell more and more by the Efforts and Strugglings of the Child as it advanceth. Ch. 13.

In these Circumstances the Woman must neither walk nor stand, but keep her bed, with her Body and Head as low as her Buttocks. The Surgeon, in the interval of her Pains, must with his own Hand put the *Vagina* up into its place; and that it may not fall out again when the next Throw comes, must keep his Hand in the *Vagina*, and gently sustain the weight of the Child, to prevent its thrusting it out again.

In Labours of this sort, we must use neither Butter nor Oil, because the Parts are too much relax'd already. The Mother must not bear down, nor hold in her Breath, or strain in time of her Pains; and the Surgeon, as has been said, must keep his Hand constantly in the *Vagina*, both to dilate the internal Orifice by little and little with his Fingers, and to keep the Neck of the Womb in its proper place. 'Tis true, that the Woman's Labour is more lingring and tedious than when the Parts are anointed with Oil, and she is permitted to cry out, and bear down; but it is safer, and seldom fails to end well.

The Woman must be deliver'd with great Circumspection and Tenderness; neither the Navel-String, nor consequently the After-Birth, must be pull'd with force. If the Womb unfortunately falls out, the Surgeon must instantly put it up as high as he can, that it may not have time to contract

Book III. contract before it is replac'd, which would give a great deal of trouble both to him and the Woman.

When she is brought to Bed, greater Care must be taken of her than in other Lyings-in: Bandages must be apply'd to keep the Womb in its place; she must not set a Foot to the Ground for fifteen Days, or be church'd for a Month; she must lay a Compress dipt in some astringent Wine upon the Region of the Loins, for some time before she applies herself to Business; and lastly, must wear a Pessary for some Months.

## CHAP. XIV.

### *What is to be done when the Child's Head is too big.*

THO a Woman has gone her full time, and the Waters are broke, and tho the Child presents right, and her Pains are very good, yet the Head of the Child sometimes advances not into the Passage, and her Delivery is retarded. This happens, first, when the Bones which form the Bason are either naturally or by accident so join'd and shap'd, that they cannot dilate and open sufficiently: secondly, when a Woman is too old, and 'tis her first Child; for then the Fibres of the Womb are too compact and hard, and cannot stretch, as in young Women. Thirdly, when the Head is so excessively big, that tho the Child is turn'd right, it is impossible for it to open the Passage, but it is stopt for two, three or four days, and advances not a bit, nor gives any signs of an ap-

approaching Delivery. We have treated of the first two Causes of this, and shall now speak of the third. Ch. 14.

The Surgeon is very hard put to it in this case, and must arm himself with Patience, and wait for the good effect of the Woman's Throws and Efforts, and give soft Answers to the many Questions which are put to him by the Relations and Assistants, who are apt to fret and be uneasy when Labour is lingring and tedious; fancying very often that it is the Surgeon's fault, and that he does not do his Duty, tho all that can be done *then* is to anoint the Parts from time to time with some fresh Butter, to facilitate their Dilatation. It must be own'd, that he can touch the Head of the Child with his Fingers; but since 'tis the Crown of it *only*, it is impossible for him to lay hold of it, and he can neither do nor promise any thing, but must content himself with being a Spectator of the joint Efforts of Mother and Child to extricate themselves out of their Difficulty and Trouble.

Some of the most noted Man-Midwives in *Paris*, in this case, try to put back the Child, and turn it, and bring it away by the Feet. I saw this done to two Women: but after the Bodies of their Children were fetch'd away, the Heads remain'd behind in the Womb, and could not be extracted, but with the greatest Violence; which occasion'd the death of both: Therefore I do by no means approve of this Practice.

The first day that the Head presents, we firmly expect a happy Delivery: the second, we look for it every moment: the third, we begin to apprehend danger: and the fourth, we despair of delivering the Woman without Instruments.

The great Nicety and Difficulty *here*, is to know whether the Child is alive or dead: for if there

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Book III. are certain signs of Death, we must proceed to the Operation immediately. But the dread of striking a Crotchet into the Head of a living Child, makes the Operator tremble, and put it off as long as he can; tho by doing *so*, the Life of the Mother is greatly endanger'd, which, generally speaking, ought to be prefer'd to *that* of the Child.

For the Instruction of the young Surgeon, I shall lay before him a particular Account of a Labour of this sort which happen'd at *Versailles* ten Years ago, and of the Method which was taken, and the Success; which may serve as a Rule to him in the like Case: for we are better taught by Examples than Precepts.

A young Lady of Quality, who was with Child of her first Son, sent for *Mauriceau*, who was then at *Versailles* waiting upon the Dutchess of *Maine*, so soon as her Pains came upon her. Next day, when the Waters broke, 'twas expected that the Head, as is ordinary, would have follow'd; but it never mov'd out of its place. The Lady was order'd to walk up and down, was blooded, and had very sharp Glysters given her; but all to no purpose. The Relations having a great opinion of *Dionis* the younger, had him call'd the third day. These two Surgeons having been Witnesses to her great and unprofitable Sufferings all that day, and the next, and finding her Pulse bad, and observing her Strength to diminish, and her Throws to be weak and insignificant, resolv'd, with the Approbation of the Court-Physicians and Surgeons, to *lay* her by main force; there being no other way to save her Life.

Wherefore having seated her on the Bed-side, and laid her Body upon Pillows, whilst two bold Women held her Legs, *Mauriceau* being the older Man,

Man, proceeded to the Operation: and having fixt the Crotchet in the Crown of the Head, and tore off the hairy Skin, intended, as he directs us in his Book, to have struck it into one of the Parietal Bones: but not being able to do it, tho he try'd it several times, gave the Instrument to *Dionis*, saying, You are young and strong, and can do it better. Ch. 14.

*Mauriceau* having stept back, *Dionis* took his place, and prepar'd for the Operation. But as he was considering whereabouts to fix his Crotchet, *Mauriceau* with the Air of a Master began to direct him. But the Lady's Father, who held her by the Hand, enjoin'd him Silence, saying, *Let Monsieur* Dionis *do as he thinks fit*; for he appear'd to him to proceed with the greatest Circumspection and Prudence. And truly, he manag'd so very well, that having fix'd his Crotchet in the Nap of the Neck towards the Base of the *Occipital* Bone, he pull'd with all his force, and brought away the Head, by degrees, in a little time; then he disengag'd the Shoulders, which were as big in proportion as the Head; and afterwards deliver'd the Lady very safely.

*Dionis* acquir'd a mighty Reputation by the laying this Lady; insomuch, that all the Ladies at Court applauded and respected him for it, and the Dutchess of *Burgundy* sent several times to enquire how things went. No extraordinary or bad Accidents attended the Lady's Lying-in. She brought forth two Children afterwards, and had very easy and kind Labours; and was oblig'd to *Dionis* for any Help that she needed.

While *Dionis* rejoic'd at his good Success, *Mauriceau* was no less mortify'd, for three Reasons: First, because he was oblig'd to give over the Operation after he had undertaken it. Secondly, because *Dionis* fetch'd away the Child by the Basis of

Book III. of the Occipital Bone, which he in his Book had declar'd to be impracticable, because of the *Os Pubis*. And thirdly, because the Child was not quite dead. Tho he had maintain'd in his Writings, that a Child cou'd not possibly live above four days in these Circumstances.

When the Head is so very big, as has been said, some Surgeons propose the emptying the *Cranium*: and in order to it, that a great Incision be made with a crooked Bistory on the Crown of the Head, in the Sutures, that both the *Cerebrum* and *Cerebellum* may be taken out; and that a Crotchet being fixt afterwards in some Bone of the Skull, it may be brought away with less Pain to the Woman. But this is not to be done; for 'tis very difficult to take out the Brains by a longitudinal Incision, seeing the Bones of the *Cranium*, which are compress'd in the Passage, necessarily oppose it. Besides, tho the Head were emptied of the Brains, it would not be smaller; for 'tis not the Brains, but the Bones that compose it, that give it the bigness.

*Mauriceau* has contriv'd an Instrument which he calls the *Tire-tête*, which he says is of excellent use: but seeing an Aperture must be made in the Head before he can introduce it, 'tis not to be us'd but when we are assur'd that the Child is dead. The same thing may be said of the Crotchet; *only* we are forc'd to use it sometimes, tho the Child is not dead, to save the Life of the Mother.

CHAP.

# CHAP. XV.

## *When the Face, or Side of the Head, comes foremost.*

THO the Child's Head presents as soon as the Waters are broke, yet Labour is not always natural. If the Face is turn'd either downwards or upwards, the Labour is natural, and a happy Delivery is the Consequence: But if it comes foremost, or is turn'd side-ways, both the Postures are vitious, and the Surgeon must instantly change them.

If he meets with the Face instead of the Crown of the Head, he must forbid the Woman to make the least Motion, that the Child's Head may not advance into the Passage till he hath given it the natural Position. In order to which, let him run his Hand gently betwixt the Head and the *Os Pubis*, and resting it easily upon the Forehead, bring the Face downwards by little and little. He must take care that he bruise not the Infant's Face, which is apt to turn both black and blue by the Compression that it suffers in this uneasy and painful Situation, if it remains in it any time.

When the Head is turn'd side-ways, or rests on the right or left Shoulder, there's no fetching of it away till it is brought to a strait Line; in order to which, let the Artist slide up his Hand to that Side of the Head which is turn'd aside, and bring it right, having first caus'd the Woman to lie down, and lean a little on the opposite Side, to facilitate the Operation. But if the Head is so

engag'd in the Passage, that there's no doing of this, let him put his Hand up to its Shoulders, and thrusting them farther back into the Womb, give it the natural and proper Position. That Moment the Surgeon perceives that the Child presents after this manner, he must try to bring the Head right against the Passage; for if he delays it, the Efforts which the Mother makes thrust the Head more and more into the Passage, and the Waters run off, and leave the Parts dry, which makes the Operation extremely difficult. But if the Method propos'd does not succeed, let him put the Infant back to the Bottom of the Womb, and search for the Feet, and bring it away by 'em, as *Mauriceau* did; for Nature in this Case will never be able to do the Business.

## CHAP. XVI.

### *How to deliver a Woman when the Child's Head is born, and the Body is stopp'd by the Shoulders in the Passage.*

WHEN the Child's Head is born, the Body is very often stopp'd by the Shoulders, if they are either too large, or if the Head is too little, and has not dilated the Passage sufficiently. This happens also when the Child is dead in the Womb; for as the Woman brings it forth, the Head, which is soft, stretches, and grows long, which the Shoulders do not. It is likewise alledg'd, That Men who have broad Shoulders beget Children like themselves, and that their Wives feel the smart of it. Lastly, this is sometimes

times the Case when the Child is not drawn forth so quickly by the Head, that the Shoulders instantly succeed in its place, and have the full Benefit of the Dilatation of *the Parts.* Ch. 16.

When the Child's Body stops after this manner, we must fetch it away with all convenient Speed, lest it be strangled; as it happen'd, in the Year 1695, to one of the *Princes of Savoy*, as we have already observ'd.

The Surgeon therefore having made sure that the Navel-String is not wreath'd about the Neck, must move the Head to the right and left, in order to disengage the Shoulders: Sometimes the Artist lays hold of the Chin with one Hand, and places the other on the hinder part of the Head, and drawing alternately one side and the other gently towards him, for the most part brings away the Child pretty easily, if it is not monstrous, or mis-shapen. He must take care that he pull not rudely, lest he sever the Head from the Body; which too often happens. If the Shoulders cannot pass, let him slide one or two Fingers first under one Armpit, to disengage the Shoulder, and then under the other, and do the same thing, and so draw out the Child. He must take care that he run not his Fingers under the Armpits with Violence, for fear he break the Shoulder-Bone; as happen'd, in the hands of a noted Man-Midwife, to one of the finest Ladies now at Court, whom I cur'd in a very short time.

## CHAP. XVII.

### *When one Hand only presents.*

OF all Labours, that in which the Child presents with one Arm *only*, gives the Surgeon the greatest Trouble; for lying cross-ways in the Womb, 'tis impossible for him to bring it away without turning it. *Here* it is that he must shew his Dexterity and Skill, since all depends upon his Management; and the Efforts which both Mother and Child make, thrust the Arm further into the Passage, and rather do harm than good.

I pity the Woman who, in these Circumstances, falls into the Hands of an ignorant Midwife, who, instead of putting back the Arm, strives to draw it forth; and is so ridiculous as to hope for Success, and calls for no Help till she has a thousand times in vain attempted to deliver the Woman, and made the Delivery much more difficult than it wou'd have been, had she put back the Arm at first.

The Surgeon having begg'd of the Mother not to stir, and given his Opinion and Prognostick to the Relations, and told them the Necessity of proceeding to the Operation, must place the Woman upon the Bed-side, half-lying, supported behind by a Woman that holds her Shoulders, that she may not draw back, or give way in time of the Operation, whilst two other strong Women hold her Legs, which must be folded back, and open'd very wide.

He must next consider whether it is the right or left Hand that presents; which he may easily know

know by the Thumb, that is nearer to the Head than the Fingers are: for being oblig'd to put the Arm back towards the Head, 'tis fit he should know whether it is the right or the left. Besides, it shews him which Hand he must perform the Operation with; for if the right Hand presents, he must use his right, *& è contra.* Ch. 10.

Having taken these Precautions, let him lay hold of the Infant's Arm as high as possible, and put it back in a strait Line towards its Shoulder; which, by raising its Head a little, will give him an Opportunity to slide his Hand along the Back-bone, and to take hold of the Foot, and by drawing it towards him without Violence, to turn it by little and little: Then let him search for the other; and having brought them close together, let him bring away the Child by 'em, according to the Directions already given.

Some wou'd have us fetch away the Child by the Head: But it is impracticable; for the internal Orifice of the Womb being but a little dilated by the Child's Arm, to which it gave way with a great deal of difficulty, will not easily admit of our introducing the Hand, and much less suffer the Head to pass.

Deliveries of this sort are deservedly term'd Laborious; for they are painful and troublesome to the Mother, the Child, and the Surgeon. I have *laid* several Women in this Circumstance; and always succeeded when I turn'd the Children, and brought them away by the Feet: But whenever I attempted to do it by the *Head*, I had a great deal of Trouble, and was sure to be disappointed. Wherefore I advise all Men-Midwives, and others who practise the *Art*, to turn the Child, and fetch it away by the Feet.

'Tis a Folly to think that if we put the Child's Hand into cold Water, or rub it with Ice, it will presently draw it in, if it is alive; neither can it, if it would, for the Weight of the Body effectually oppose it.

*Ambrose Parrey* proposes the taking off the Arm as high as possible, making first an Incision round it, and afterwards cutting through the Bone with sharp Pinchers, if we are sure the Child is dead. But the Difficulty of such an Operation, and the Horror that it fills those that are present with, utterly discourage and forbid the performing of it.

*Mauriceau* thinks it better to twist it three or four times *round*, to separate the Shoulder-Bone from the *Blade*, and afterwards to cut the Flesh; for *then* there will be no danger of hurting the Womb by the Asperities of the Bone, as we bring away the Infant. But since *Mauriceau* thought not fit to reduce this Advice into Practice, so neither shall I desire others to do it.

## CHAP. XVIII.

### *When the Child presents with its Shoulder, Back, or Side.*

ONE of the worst Postures that a Child can *come* in, is *that* of its Shoulder, because of its great distance from the Feet, which the Surgeon must search for, and bring it away by. Besides, the Head and Neck in this Situation are very much squeez'd and compress'd.

Let the Woman be put into a convenient Posture, and neither bear down nor cry out, if

'tis

'tis in her power to forbear it: Let the Surgeon thrust the Shoulder back, that he may introduce his Hand into the Womb. And tho he meets with Resistance from the Weight of the Child, and the Contraction of the *Parts* of the Mother to ease her of her Burden, let him not be discourag'd, but put to more Strength; and if the Child's Head is like to come into the place of the Shoulder, let him contribute all he can towards it. This, however, happens so *rarely*, that he is not to wait for it; but having thrust the Shoulder a little back, let him slide his Hand along the Side, and search for the Feet, and bring the Child away by them. Ch. 18.

If the Back presents, each Effort that the Mother makes bends it, and the Parts contain'd in the *Thorax* and *Abdomen* are so compress'd, that if the Child remains long in this Situation it is in danger of being suffocated. The Surgeon must therefore quickly slide his Hand along the Back towards the Buttocks; and having found the Feet, draw it forth the same way as if it came footling.

The Child comes sometimes with the Breech foremost; and several Midwives meeting with one Buttock, and finding it round and hard, take it to be the Head, and make no Bones of it to assure those who are present that the Child presents right; neither are they to be convinc'd of their Error till they see that the Birth advances not, and the Mother has suffered prodigiously. We own that a great many Children have been born double with their Thighs folded upon their Belly: But *then* either the Infant is very little, or the Passage is very wide; for the *Parts* must dilate much more than if the Head came first, and made way for the rest of the Body. I heartily pity Women of moderate Dimensions, who fall into the Hands

of ignorant and conceited Midwives, who make them endure most dreadful Pains: I think they have very good reason to be highly incens'd against them. When the Dutchess of *Burgundy* was in labour of her last Child, the present King of *France*, who presented *after this manner*, Monsieur *Clement* being sensible of it, did what he thought good. The Dutchess was heard to say, That he put her to greater Pain than she had ever felt in any Birth before. However, he took his own way, and brought her safely to bed in a very little time. This shews how great a difference there is betwixt being in the hands of an able Surgeon, and a Midwife that knows nothing.

Tho *Mauriceau* tells us that the first Woman that ever he *laid* was of a Child whose Breech came foremost, yet he does not advise us to bring Children away after that manner; and owns that he was forc'd to it, because the Child was so far engag'd in the Passage before he came, that 'twas impossible to thrust it back, and turn it. He desires the Surgeon, when this is the Case, to slide one or two Fingers of each Hand on each side of the Buttocks into the Groins; and having crook'd and fix'd them *there*, to draw the Child gently towards him. He likewise tells us, that he had seen some Women bring forth Children in this Situation without any Pain; But either the Children must have been very little, or the Husbands must have had but very *unsuitable* and *disagreeable* Wives.

When the Breech comes foremost, the Child very often voids the *Meconium* by the Fundament; for as the Birth advances, it is necessarily press'd out, as if the Child sat on a Closestool; which must needs be offensive to it.

Children who present after this fashion, have ordinarily their Back turn'd towards their Mo-

ther's,

ther's, and consequently their Face upwards, which we must not fail to turn towards the Strait-Gut; for when the Face is turn'd upwards, the Chin is apt to strike against the Share-Bone, and the Head often stops in the Passage. Ch. 19.

## CHAP. XIX.

### *Of those Births wherein the Infant presents with the Belly, Breast, or Side foremost.*

WHen the Child presents with the Belly or Breast foremost, the two Situations are much the same, and are equally dangerous; for the Navel-String in *both* never fails to come forth; and the Back-Bone, which can by no means be bent backwards, is so press'd, that the Child is rack'd with Pain, and must needs die if it is not speedily reliev'd.

The utter impossibility of bringing the Child away in this Posture, is a farther Inducement to the Surgeon to do his best to change it. Let him therefore thrust the Child gently back, and sliding his Hand downwards, search for the Feet, and bring them into the Passage, and then bring away the Child by them; not forgetting to turn its Face downwards, for the Reasons so often given.

When the Child presents with the *Side*, the Situation is not so dangerous as the other two, because it can more easily throw itself upon one side or t'other, and remain longer in *this* Posture without dying. Besides, the Navel-String is not so apt to come out before it. But seeing 'tis as impossible for it to be brought away in this Posture,

ture, as in the other two, the Surgeon must instantly introduce his Hand into the Womb, and having put the Child back, and turn'd it, must slide his Hand along the Thighs, till he has found the Legs and Feet; by which he must fetch it away as soon as possible.

## CHAP. XX.

### *When the Child presents with the Knees first.*

IF an Infant *turns* not, about the beginning of the ninth Month, and places his Head against the internal Orifice of the Womb, other Parts, as has been said, present; and in particular, the Knee, which is distinguishable from the Head in this, that it is not so big, nor fills the Passage so well; and from the Elbow, by being more round, and not so pointed as it is.

We may be sure that the Knee presented, if we find the other join it soon after: and then if the Child's Face is turn'd towards the Mother's Back, and if the Knees are far advanc'd in the Passage, the Surgeon may bring it away; otherwise he must turn it, by sliding two Fingers under the Ham, and running them along behind the Leg till he reaches the Foot, extend first the one Leg and next the other, and then fetch the Child away by the Feet.

# CHAP. XXI.

## *When the Child presents with the Feet and Hands together.*

THO the Infant comes frequently with his Hands foremost, yet 'tis but seldom that it presents with Hands and Feet together: for having, according to its natural Situation in the Womb, the Legs turn'd back towards the Buttocks, 'tis not easy to unfold or stretch them out and present them with the Hands. However, if we may credit some Authors, it now and then happens; and in that case, the Surgeon must patiently wait till the internal Orifice is so much dilated, and these Parts are so far advanc'd, that he can plainly distinguish the Feet from the Hands; then let him forthwith put back the Hands, and bring away the Child by the Feet with all convenient speed.

This is not so hard to be done as some imagine; for when we pull the Legs gently towards us, the Head and Hands necessarily fall back, and follow the rest of the Body, and the Delivery is not very laborious; especially if the Waters have not run off long before, and if the Parts are not left dry: for in that case, the Surgeon must search for the Child's Head, which is very near, and thrust it easily back again.

Those Authors who understand something of the Theory of Midwifery, but nothing of the Practice of it, are unanimously of opinion, That when the Child is to be turn'd, it ought to be done *so*, that his Head may always come foremost.

But

Book III. But had they the least Experience, they would readily own, that this is not to be done; and all who have endeavour'd to put this Rule in practice, have found so much difficulty in it, that they agree, that in unnatural Labours it is the best way to bring it forth by the Feet. They likewise observe, that tho the Head were plac'd directly against the Passage, yet the Mother must suffer prodigiously before the internal Orifice of the Womb is sufficiently dilated; but that when once they have got hold of the Feet, the Thighs and the Trunk of the Body which follow, open a Passage for the Head, the Mother is not put to so much Pain, and the Infant is brought sooner out of Prison.

## CHAP. XXII.

### *When the Child is Hydropical or Monstrous.*

WHEN there's a *Hydrocephalus*, or Dropsy of the Head, it may well retard Delivery, but can't absolutely hinder it; for the Part being *yet* soft, stretches and grows long in the Passage by the repeated Throws, and so makes its way, and is follow'd by the rest of the Body. I have seen Children born with this kind of Dropsy, who were immediately scarified about the Nape of the Neck, to let out the Waters by little and little; and it succeeded so well, that they are in perfect Health at this day. But 'tis to be observ'd, that those *Dropsies* of the Head are *only* curable, in which the Water is contain'd betwixt the hairy Skin and the *Pericranium*.

But

But if the Head is so very big, from the quantity of Water which it contains; that 'tis impossible for it to pass, let the Surgeon make a sufficient Aperture with a crooked Knife, near the *Sutures*, on the top of the Head, to let out the Waters, and then bring away the Child. Ch. 22.

Tho the Child's Head and Shoulders are pass'd, yet the rest of the Body sometimes stops, by reason of the great Distension of the Belly, from Water contain'd in it. *Mauriceau* gives an account of an hydropick Child, which, after its Head, Arms and Shoulders were forcibly brought away with Crotchets, stuck so fast in the Passage, that it could not be fetch'd away till the Belly was tapp'd, to let out the Waters.

Tho the Surgeon is much to be pitied when this is the case, yet he must not give over, but do all that's in his power to save the Life of the Mother. In order to which, let him slide his left Hand down the Child's Breast to its Belly; then taking a Crotchet that's crooked, long hafted, and sharp at the Point, into his right hand, let him slide it upon his left to the Belly, and pierce it with the Point, to let out the Waters.

A Child is said to be monstrous, either when it is prodigiously big, or when the Conformation of the Parts is odd and extraordinary, or when two are tied to one another. These sorts of Births are truly laborious; and all the Care, Skill and Strength of the most able Artist is sometimes scarce sufficient to do the business.

If the Infant is right turn'd, if its Head presents, and if nothing stops it but its excessive bigness, the Surgeon must wait and observe whether the Pains advance the Birth or not; and if he finds they do not, and that the Woman's Strength diminishes apace, he must have recourse to Crotchets,

chets, and proceed as Monsieur *Dionis* did with the Lady at *Versailles*, whose Life he sav'd.

We know not well how to give Directions about monstrous Births from a wrong Conformation of Parts; 'tis not in the power of Man to imagine their Figures, or to foresee such extraordinary and surprizing Cases. The Surgeon on these occasions must do as he sees good; only I would advise such as are young, never to make use of Instruments till they have consulted with some old experienc'd Surgeon, and shewn him the absolute necessity of it; for there can't be a more dreadful sight than to see a Child brought away in pieces.

## CHAP. XXIII.

### *When the Navel-String presents first.*

LAbour in which the Navel-String comes first, is most dangerous, especially to the Child, which frequently dies upon it, in the Womb; for when the Navel-String is compress'd in the Passage by the Infant's Head, the Circulation of Blood betwixt it and the Mother is intercepted; and if it remains in this Situation any time, it must needs perish.

When the quantity of Waters in which the Infant swims is considerable, the Navel-String is apt, upon the breaking of the Membranes, to burst forth with the Waters, especially if it is very long, and makes several Circumvolutions; for then one of 'em often falls into the Passage with the Waters, before the Infant's Head is plac'd in it.

If

If the Infant is alive, the Navel-String feels warm, is firm, hard, and distended with Blood; and if it is not compress'd by the Infant's Head, the Pulsation of the Arteries may be plainly felt: but if the Child is dead, the Navel-String is flaccid and cold, and there's no Pulse at all. Ch. 23.

So soon as the Navel-String comes forth, the Surgeon must put it back behind the Child's Head, and keep it *there* with his Fingers till the Head is so far advanc'd in the Passage, as to hinder its falling out again.

Seeing the Infant's Head presents not always when the Navel-String comes forth, as the Surgeon thrusts it back, he ought to examine the Situation of the Child; for if any other Part but the Head presents, he must not lose time in trying to bring it into the Passage, which is very difficult, and sometimes impracticable, but must search for the Feet, and *lay* the Woman immediately: for tho the Head presents, yet 'tis often absolutely necessary for the Surgeon to put it back, and bring the Child away by the Feet, because the Delivery is more speedy, and he bids fairer to bring the Child alive into the World by managing it so, than if he waited till the *Parts* were sufficiently dilated for the passage of the Head, by the repeated Efforts and *Throws* of the Mother.

CHAP.

## CHAP. XXIV.

### *When the After-Burden presents first.*

WHEN the After-Burden comes foremost, the Life of both Mother and Child is in the greatest danger, if they are not immediately succour'd.

When the After-Birth is separated from the bottom of the Womb, the Vessels which carry the Blood from the Mother to the Infant, and *those* of the Infant which carry it back to the Mother, being separated from it, incessantly pour forth this Blood, and quickly exhaust both Mother and Child, if the Woman is not presently deliver'd; for 'tis evident that the Mouths of the Vessels of the Womb cannot shut so long as it is distended by the weight of the Infant contain'd in it, but must necessarily shed Blood into it continually. 'Tis just *so* with the Umbilical Arteries; and therefore both Mother and Child must inevitably perish thro loss of Blood, if the Woman is not instantly *laid*.

The After-Birth is not always loosned by great Falls: sometimes the Navel-String is wound about some part of the Infant, which by its Strugglings pulls it *so*, that it separates it first from some part of the bottom of the Womb, and afterwards *entirely* from it.

The After-Birth sometimes loosens before the Membranes which contain the Waters are broke, and then when the Infant turns itself, it is to be found at the internal Orifice of the Womb; and when the Surgeon is sensible of this, by the softness

softness of the Part that he meets with, he must slide his Hand on one side, and break the Membranes, and let out the Waters; and having put the After-Birth a little aside, turn the Child, if it be in any other Posture than with the Feet foremost, and bring it away immediately. Ch. 24.

If the Membranes are broke, and the After-Burden is in the Passage, he must not trifle or lose time in thrusting it back, or tying the Navel-String that hangs out, but *lay* the Woman immediately; upon which the Flooding ordinarily ceases.

But however diligent and nimble the Surgeon is, yet the Child for the most part is so weak, that 'tis hard to tell whether 'tis dead or alive; for having been almost suffocated, and not being able to breathe for some time, it recovers by little and little *only*, as the Air enters and blows up the Lungs. 'Tis an old Practice amongst Midwives, to warm Wine in a Skellet, and put the After-Birth into it before they separate it from the new-born Child; fancying that the Spirits of the warm Wine are carry'd to the Child by the Navel-String, and bring it (as they express it) to Life again. But tho this is of no service to it, the Surgeon must by no means declare against it; for if the Child, having lost too much Blood, recovers not, the good Women will not fail to charge him with the murder of it.

## CHAP. XXV.

### *Of Labours wherein several Children present together.*

IF Labour is so difficult and dangerous, when a single Child presents not right, or is monstrous; how much more painful and difficult must it be when several Children come together in a wrong Situation? For being straitned and crowded, they are a mighty hindrance to one another. Besides, the Womb is so stuff'd with them, that the Surgeon has much ado to introduce his Hand to thrust them back and turn them, to put them into a better Posture.

Tho we now and then guess by the bigness of the Belly, that a Woman will have Twins, yet we are never sure of it, till she hath brought forth one of them; for they very rarely present both at a time: but as we search for the After-Birth of the first, we find the second advance into the Passage, and then we receive it and bring it away, before we offer to deliver the Mother, for Twins very often have but one After-Birth. When two Children present together, the Surgeon must bring that away *first* which he thinks he can command easiest. When one presents with the Feet, and the other with the Head, he must thrust back the Feet of the first, to facilitate the egress of the other. It is true, that the Child that is born last, suffers most; because as the first struggles and advances, it pushes against it with its Feet: besides, the Efforts and Bearing-

down

down of the Mother, which are of use only to that which is in the Passage, give it a great deal of Uneasiness and Pain. And when the first is born, the Surgeon must introduce his Hand into the Womb, and bring away the second by the Feet. Ch. 25.

There are some who would have the second Child brought away by the Head, when it presents *so*; but the most expert and able Surgeons are of the contrary opinion, judging that it would be in danger of remaining too long in the Passage, and dying in it, both because 'tis weak and fatigued by the *first*, and because the Mother is so very much spent and discouraged upon hearing that she hath another Child to bear, that she can make no help.

When the Feet of two Children present, the Surgeon must slide his Hand along the Legs and Thighs to the Twist; and if he finds that both the Feet which he hath hold of, belong to one Body, he must draw forth the Child by them, having first put the Feet of the other back a little, to make way for that which he purposes to bring away first. Having receiv'd it, he must lose no time in tying the Navel-String, or searching for the *After-Birth*, but instantly catch hold of the Feet of the second Child, and fetch it away after the same manner, and then proceed to deliver the Mother, or bring away the After-Birth; which will be no hard task, both because the Passage is very much open'd, and because he hath two Navel-Strings to pull them by. Twins have often one After-Burden only, and therefore 'tis not unlikely that they are form'd in one and the same Egg, just as we see a Peach-Stone contains two Almonds, (with Membranes proper to each) out of which two Peach-Trees arise.

## CHAP. XXVI.

### *Of a Labour attended with great Floodings and Convulsions.*

HAVING treated largely of Floodings in Women with Child, in the Third Chapter of the First Book, I shall now discourse of *those* only which accompany Labour.

Tho there's a Flux of Blood from the Womb when a Woman falls in Labour, we must not be frighted at it; but that it may not encrease, must let her blood in proportion to her Strength, and commit the rest to Nature.

As the Womb dilates in Labour, some Vessels open, and a Flux of Blood ensues; which is not dangerous, because the Vessels are not big. But if there are Floodings from the Separation of some part of the After-Birth, however little soever the Womb is dilated, the Membranes which contain the Waters must be broke, that the Distension may be taken off, and that the After-Birth may not be further loosen'd, which both prevents the Increase of the Flooding, and makes way for the Child's advancing into the Passage, and being born the sooner.

Convulsions are very troublesome; and if not timely remedy'd, as often kill both Mother and Child as Floodings do. They very often frighten those who are present, who take the Woman to be a dying every Fit that comes; and truly nothing can be more unacceptable and doleful, than to see a Woman lose her Reason, look wild, and to have the several Parts of her Face distorted,

as

as well as *those* of the rest of the Body, insomuch that she looks like one that's ready to give up the Ghost. Ch. 26.

Convulsions in this Case are occasion'd either by too great a Quantity of Blood heated and rarefied in Labour, or by excessive Floodings, or those extreme Pains which a Woman suffers in her first Child, before the Parts are sufficiently dilated, to open a Passage for it.

If Convulsions are owing to too great a Quantity of Blood, it must be diminish'd by opening a Vein in the Arm or Foot, as the Surgeon pleases. If to too great a Loss of Blood, let Cordials be given, and good Broths, Jellies, and other liquid Aliments, which have a prompt Effect, and are very nourishing. But if they are occasion'd by Pains, let the *Parts* be fomented with emollient Decoctions, and anointed with Oil; let soft Glysters be injected, to a small Quantity, and let the Woman strive to keep them as long as she can.

Strong Emeticks, which are order'd by some both against Convulsions, and to expel the Child, are condemn'd by all skilful Practitioners, who think they do more harm than good, and alledge that they never saw any good Effects of 'em; but on the contrary, that they sometimes loosen the *Placenta*, and cause great Floodings, which are far more dangerous than Convulsions themselves.

We often see Women who have five or six strong Convulsion-Fits in time of Labour, happily deliver'd, and bring forth living Children: And therefore we must not be too hasty in making use of rude and violent Medicines, which frequently retard *Labour*, and make it more dangerous too. If a Woman recovers not her Senses after a strong Convulsion-Fit, but is very drowsy, and foams at

Book III. the Mouth, both she and her Child must inevitably perish, if she is not quickly delivered. 'Tis true, that this does not always save 'em; but since it succeeds very often, and I have heard of a great many Women who, in these Circumstances, were *laid* when they knew nothing of it, I would not have the Surgeon scruple the doing it.

If the Child's Head, in this Case, comes foremost, it must be thrust back, and brought away by the Feet; for if the Surgeon should attempt to bring it away by the Head, he would find it impracticable, because the Woman's Pains are *then* very slow and weak, and she's in no Condition to make the least Effort to further her own Delivery.

The best way that such as are subject to Convulsions in Labour can take to prevent them, is to be blooded twice or thrice during Pregnancy, and a fourth Time a few Days before their Reckoning is up; which is proper not only against Convulsions, but excessive Floodings in Labour also. It was maintain'd as a *Thesis* some Years ago in the Physick-School at *Paris*, That Women with Child ought to be blooded in the Foot instead of the Arm. I am far from pretending to dispute the Orders, or oppose my self to the Sentiments of that Learned and Illustrious Faculty; but beg leave to observe, That if bleeding in the Foot is of Service to Women with Child at any time, it must be particularly *so*, to such as are subject to Convulsions in Labour, if the Vein is open'd a few Days only before their *Pains* come; for it prevents the Blood's ascending to the Head with too great Impetuosity in time of Labour.

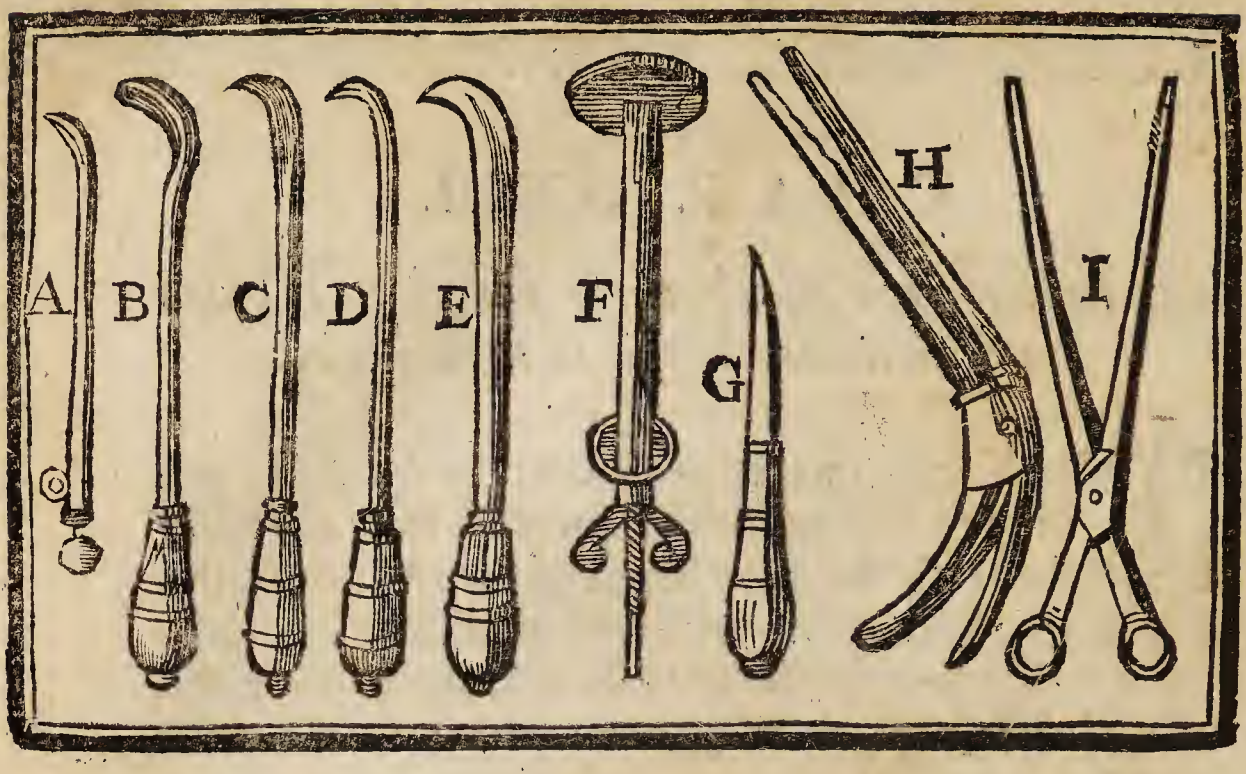
CHAP.

# CHAP. XXVII.

## *Of Instruments which those who* lay *Women are sometimes oblig'd to make use of.*

THO Instruments are never to be made use of but when there's an absolute Necessity for it, because the very Sight of 'em fills not only the Mother, but all who are present with Horror; yet when the Head is sever'd from the Body, and is left behind in the Womb, or when the Child is excessive big or monstrous, and upon a great many other Occasions, there's no doing without them; and therefore those who are forced to use them themselves, but will not allow others to do it, are very much to be blam'd, and may be fitly compar'd to Tooth-Drawers, who boast of it, that they draw Teeth without Instruments, though they make use of 'em every day.

Since Surgeons therefore must have recourse to Instruments, when there's no way of saving the Mother's Life but by bringing away the Child by Force, I have caus'd the Figures of such as he must needs make use of to be inserted here.




A. *A* Catheter, *to let out the Urine when a Woman cannot make Water, and when it is necessary to empty the Bladder, particularly in difficult Labours.*

B. *A* Crotchet *to draw forth a dead Child.*

C. *Another* Crotchet *for the same purpose, bigger or smaller, as the Case requires.*

D. *A blunt* Crotchet *to draw forth the Child's Head when 'tis sever'd from the Body, and remains in the Womb. All the three must be strong, even, and smooth, that the Womb may not be hurt in the Operation, and ten Inches long, or thereabouts, comprehending their Handles, which must be of a moderate Bigness, that we may have a firm Hold of 'em.*

E. *A Crooked Knife, as long as the Crotchets, for cutting a Child in pieces when it is monstrous.*

F. *An Instrument invented by* Mauriceau, *which he calls* Tire-Tête, *or* Pull-Head.

G. *A* Scalpel *to make an Incision in the Child's Head, for to introduce the* Tire-Tête.

H. *A* Crane's-Bill *to fetch extraneous Bodies out of the Womb, when the Hand cannot be introduc'd.* Ch. 27.

I. *Another Instrument for the same purpose.*

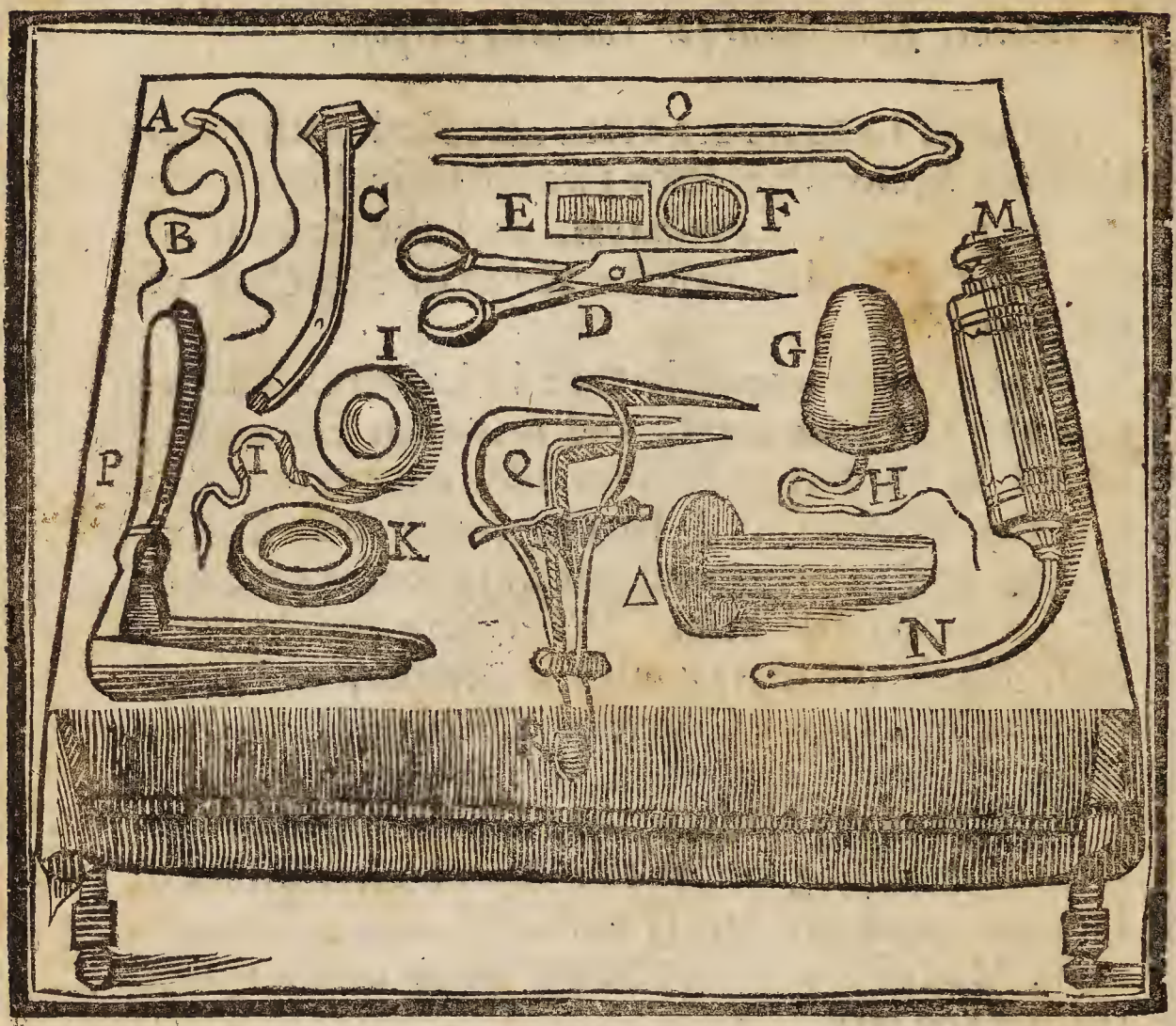
Difficult Labours are often attended with troublesome Accidents: The two principal ones are the tearing of the *Perinæum*, and the Descent of the Womb, which call for the Skill and Care of the Surgeon.

When the *Perinæum* is tore in Labour, the *Vagina* and the *Anus* meet, and make one Hole only, which is very troublesome and uncomfortable; for the Woman can hardly retain her Excrements, and her Husband not only loaths her, but she loaths her self also. Wherefore the Surgeon must stitch the Parts with a Needle, as I have directed him in my Course of Chirurgical Operations.

A great many Women are afflicted with a Descent and Falling out of the Womb after difficult Labour, and are rarely cur'd of *either*, because their Modesty will not allow them to complain till 'tis too late.

We must distinguish betwixt the Descent and Falling out of the Womb. The first happens when the Bottom of the Womb descends into the *Vagina*. The second when it falls out of it. I have shewn how to remedy *both* in my Course of Chirurgical Operations, to which I refer the Reader, and have only caus'd the Instruments made use of, and such as are most us'd in Midwifery to be inserted here.

*Other Instruments used in Midwifery.*




A. *A* Crooked Needle *to stitch the* Perinæum.
B. *The* Thred *in the Needle.*
C. *A* Cannula, *or Pipe, that is to be used.*
D. Scissars *to cut the Thred.*
E. *A* Compress *to be put under the Stitches.*
F. *An Astringent Plaster.*
G. *A* Pessary, *of the Shape of an Egg.*
H. *The* Thred *that is fasten'd to it.*
I. *A* Round Pessary, *with a Hole in the Middle.*
K. *An* Oval Pessary, *with a Hole in the Middle also.*
L. *The* String *to hold it by.*
M. *A* Syringe *for a Woman.*
N. *Its* Crooked Pipe.
O. *A* Dilator *with two Branches.*
P. *Another sort of* Dilator.

Q. *A* Speculum Matricis, *or* Dilator, *with three Branches.* Ch. 28.

R. *A* Skrew *to open and shut it.*

Δ. *A* Wax-Candle, *like to a* Cannula.

## CHAP. XXVIII.

### *Of the* Cesarean *Section.*

WE have spoke of all the Ways of bringing the Child out of the Mother's Womb, save one, which is the *Cesarean* Operation. And seeing it ought not to be perform'd but on dead Bodies only, we have given it the last place, and are resolv'd to conclude the Third Book with the Consideration of it.

By the *Cesarean* Section is meant an Incision made on the Belly of a Woman with Child, to take the Child out of the Mother's Womb when it can't be done otherways. It is call'd *Cesarean*, because *Scipio Africanus*, being taken out of his Mother's Womb after this manner, was therefore called *Cæsar*. The same Name was also bestowed upon his Descendents, and all such as came into the World after the same manner. But *Pliny*, who gives an Account of it, tells us not whether his Mother was dead or alive when the Operation was perform'd, which is a Circumstance he ought by no means to have omitted. 'Tis probable, however, that she was dead; for there are but very few who are so cruel and barbarous, as to undertake to make the *Cesarean* Incision on Women alive.

Some Surgeons have the Assurance to advise us to perform the Operation, and take a great deal of pains to shew the Possibility of Success. Some are positive upon the Testimony, and report of

others

others that it has succeeded; and some Women are so very credulous as to believe that they were treated *so*, but having lost their Senses in Convulsion-Fits, know nothing of the matter.

On the other hand, some able Surgeons, and in particular *Ambrose Parrey*, utterly condemn the Practice, and tell us that they never saw the Operation perform'd but at the Expence of the Woman's Life. *Guillemeau* hath writ a large Dissertation to dissuade us from it. *Mauriceau* spends a whole Chapter in setting forth the sad and dreadful Consequences of it, of which even Death it self seems to be the least. And tho I do not pretend to be so famous an Operator as they were, yet I hope that, in my Course of Chirurgical Operations, I have so describ'd the frightful and cruel Circumstances of it, as to fill the Surgeon with Horror, and effectually discourage his undertaking of it.

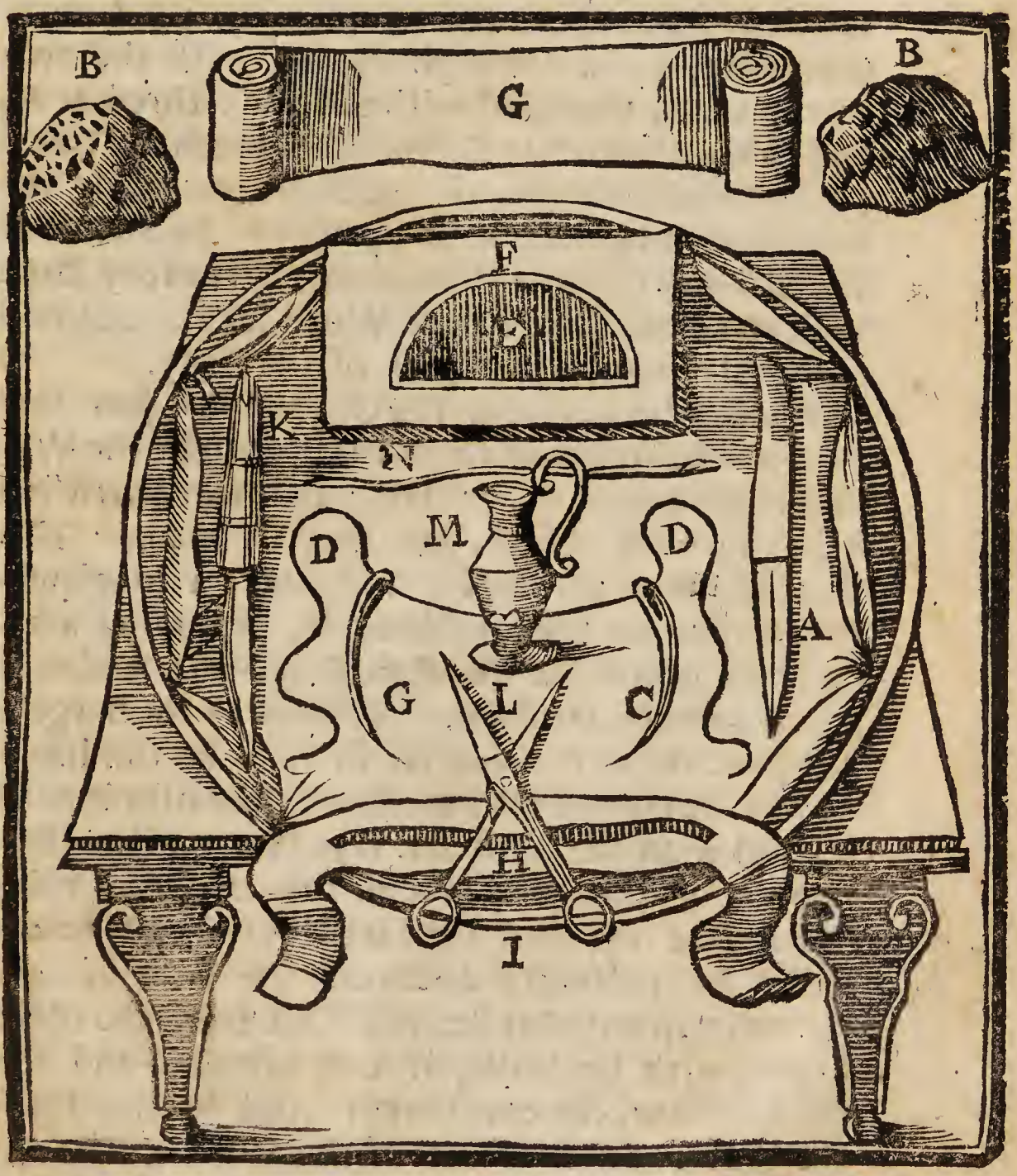
From what has been said, 'tis evident that the Operation is by no means to be perform'd till the Woman is dead; and that those who are so bold as to venture upon it while she's alive, deserve to be severely punish'd for butchering of her after this manner. But tho the Operation ought not to be perform'd upon the Woman while she's alive, yet the Surgeon is specially requir'd by the Law to do it that Moment she dies, in order to preserve, if possible, the Life of the Child.

The Word *Embryoelke*, by which the *Grecians* express'd this Operation, being deriv'd from *Embryon*, which signifies an Infant, and from *Elkein*, to draw, shews us that it was practis'd before there were *Cæsars*; and that tho *Scipio Africanus* was not the first who came into the World after this manner, *yet* they afterwards call'd it the *Cesarean Operation*, because 'tis more easy to say *so*, than to pronounce the Word *Embryoelke*.

Altho

Altho I have given particular Directions about making the *Cesarean* Incision in my Course of Chirurgical Operations, yet I think it proper to repeat *them* here for the Instruction of the Reader, who may want *that* Book, *especially* upon an urgent Occasion. I have likewise thought fit to give the Figures of the Instruments that are made use of, and the whole *Apparatus*. Ch. 28.

*Instruments for the* Cesarean *Operation.*




Those

Those who would have the Operation perform'd upon a Woman that is alive, direct us to make a large Incision, with the Bistory *A.* upon the Side of the Belly in form of a Crescent, and forthwith to open up the Bottom of the Womb, and take out the Child, and to wipe the Parts with the two Spunges *B B*, to imbibe the Blood that is shed in the Operation. They think it needless to stitch the Womb, because as it contracts of its own accord, the Lips of the Wound reunite. But they order us to make a Suture of the Belly, as in the *Gastroraphia*, with the two Needles *C C*, thredded with the Wax-thred *D D*, and to lay the Plaster *E*, and afterwards the Compress *F* upon the Suture, and then to apply the circular Bandage *G*, kept up by the scapular one *H*, and to dress the Wound carefully every Day; which, if you'll take their Word for it, will heal as readily as any other part of the Body.

Those who perform the Operation upon dead Bodies *only*, proceed to it that Moment the Woman has breath'd her last, and forthwith put a Gag into her Mouth, to keep it open. *Then* they uncover the Belly, and make a longitudinal Incision on the middle of it, beginning a very little below the *Cartilago Ensiformis*, and ending above the *Os Pubis*. So soon as the Surgeon has pierc'd the *Peritonæum*, so that he can introduce a Finger of his left Hand, he raises it with it, and with the Sciffars *L* lays it open the whole Length of the Belly; and the *Omentum* being *then* drawn up, and the Intestines turn'd to one Side, he presently discovers the Womb, and opens it up with his Scalpel. He tears the Membranes with his Nails, if they are thin and tender; if not, he cuts them: And having found the Child, takes it out of the Womb, ties and cuts the Navel-String, and gives it to some Woman,

man, who wraps it up in warm Clothes, and carries it to the Fire-side, *where* all Means that can be thought of are us'd to recover it out of its Weakness. 'Tis wash'd with warm Wine: It is kept very warm; and they open its Mouth, and pour some Drops of a spirituous and cordial Liquor gently down its Throat. Ch. 28.

Tho I have said that the Mother must be gagg'd in time of the Operation, 'tis not because I think that the Child breathes in the Womb, as the Vulgar do; who, if it is found dead, which is very often the Case, are sure to lay the Blame upon the Surgeon if he has not put a Gag in the Mother's Mouth. He must therefore by no means omit this Circumstance, for the Satisfaction of those that are present, and to put it out of the power of silly Women, and others who know nothing, to throw malicious Reflections upon him.

He must not plunge the Scalpel hastily too far into the Womb, imagining, as most Authors tell us, that 'tis two Fingers Breadth in Thickness, lest he hurts the Child; for, as has been already observ'd, 'tis certain that the Womb is thinner in the last Months of Gestation, than in the first; and it is not unlikely that the Antients, having open'd it *where* the *Placenta* adheres, confounded the Thickness of the After-Birth with *that* of the proper Substance of the Womb it self. The Surgeon, however, has not much to apprehend; for the Membranes and Waters in which the Child swims facilitate the Operation, and make it impossible for him to hurt the Child, except he goes very inconsiderately and rudely to work.

'Tis the Surgeon's Business nicely to observe whether the Child is dead or alive: For in a great many Countries the Father has a Right to all the Moveables, if the Child survives the Mother;

Book III. ther; but if it dies before her, they belong to her Relations. And as in Law-Suits of this nature, the Sentence of the Judges, for the most part, is founded upon the Surgeon's Evidence, so he ought to weigh every Circumstance, and make a sure Judgment of Things, that Justice may be done, and that he may preserve a good Conscience.

When the Operation is perform'd as has been directed, if the Infant is alive, it must be committed to the Care of some Kinswoman; but if 'tis dead, it must be put into the Mother's Belly again, which is to be stitch'd as we use to do dead Bodies, when we open them.

We have in this Third Book shewn how a Child is to be brought out of the Mother's Womb in Labours natural or difficult: But we must not only ease the Woman of her painful and heavy Burden, but must likewise give her all the Assistance and Relief, with respect to her Complaints in Child-Bed, that is in our power, which shall therefore be the Subject of the Fourth Book.

A

# General Treatiſe

OF

# MIDWIFERY.

## BOOK IV.

### *How a Woman is to be ordered after her Delivery.*

LABOUR is grievous both to Mother and Child. The Mother brings not forth without great Pain; and the Child comes not out of its Priſon without great Strugglings, and ſuffering a great deal in the Paſſage, and narrowly eſcaping the greateſt Dangers. And tho Women ſeem to be happily deliver'd, yet we often ſee them die in Child-Bed, and the Children make their Exit within a few Days after they are born; which plainly ſhews, that both one and the other have *ſtill* occaſion for a Surgeon to take care of 'em, and to provide againſt a thouſand Accidents to

which they are subject; which are so many and so considerable, that I have thought it proper to treat of 'em in two Books. In the First I shall speak of those incident to the Mother, and in the Second of those which ordinarily happen to the Child.

## CHAP. I.

### *What is to be done to a Woman immediately after Delivery.*

SO soon as a Woman is *laid*, and fully delivered, a Closure of old soft Linen, five or six times doubled, must be applied to the *Parts*, to prevent the cold Air from entring the Womb, or *Vagina*; which might be of dangerous Consequence, especially seeing the *Parts* are *then* very much dilated. This Closure serves likewise to receive the Humours that flow from the Womb after Delivery: But if 'tis apply'd cold, it will be apt to shut the Vessels too soon; and if too warm, it may occasion Floodings.

*Mauriceau* alledges, That the Woman ought to be *laid* in the Bed that she is to lie in during the *Month*; for then there will be no necessity for moving her after Delivery. But Women do not chuse to be *laid* in their ordinary Bed, unless their Pains come so suddenly upon them, when they are in it, that they have not time either to have a Palate-Bed prepar'd for them, or to get into it. 'Tis certain that the Surgeon and the Servants can give the Woman the necessary Assistance more conveniently when they lie in a Palate-Bed, than when

when they are in a larger one; and that after they are *laid* and put into their ordinary *one*, they will lie neater and sweeter than if they had been deliver'd in it. Let her therefore lie in the Palate-Bed for three or four Hours after Delivery, that the Womb may discharge it self of the Humours, which are ordinarily and profitably evacuated on this Occasion. Then let her be put into her own Bed, on which several Folds of Linen are laid, that the Quilt may not be spoil'd by her Cleansings. Chap. 1.

As soon as she is deliver'd, 'tis usual to give her an Ounce of *Oil of Sweet Almonds drawn without Fire*, with an equal Quantity of *Syrup of Maiden-Hair*, and the *Juice of a large Orange*; to take off her Hoarseness, occasion'd by her crying out in Labour, to prevent violent Gripes, to mitigate her After-Pains, and to promote her Cleansings. We shall not forbid those to take this Remedy who are either accustomed to it, or have a great Opinion of it: But if the Woman nauseates it, 'tis not to be forc'd upon her; but it is better to give her some good Broth, made with the half of a Leg of Mutton, a Piece of Beef, and a Partridge. Some add Leeks, because they take 'em to be good against Gripes and After-Pains.

Tho Women formerly were not permitted to sleep for some Hours after Delivery, and tho the late Queen of *France* was treated *so*, yet this Practice is justly condemn'd by all Men of Sense; because Rest and Sleep are the most proper Means to restore the Woman, and to prevent a great many Accidents to which she is very subject in these Circumstances.

## CHAP. I.

### *Of Applications to the Breasts and Belly of a Woman newly deliver'd.*

A Woman newly *laid* very often complains of Pains in the *Parts*, especially if it is her first Child, and is very big, for *then* the *Parts* are apt to be inflam'd. In prevention of which, it is ordinary to make use of an *Anodyne Cataplasm*, made of two Ounces of Oil of sweet Almonds and two Eggs, Yolks and Whites, stirred together in a little Pipkin over hot Embers till it has the proper Consistence, and is afterwards spread upon a Linen-Rag, and apply'd to the *Parts* a little warm: the Closures which were put to them being first taken away, with any Clods of Blood that are left *there*. Some instead of Oil of Sweet Almonds use *that* of Walnuts, and make them like an Omelet or Pancake. This Cataplasm is renew'd every fourth Hour. It eases Pain, occasion'd by too great a Distension of the *Parts*. Several Ladies use it; and Monsieur *Clement* had recourse to it in behalf of the *Dauphiness* every time she lay in. But it is not always necessary, neither do a great many Women make use of it.

During the first five or six Days the *Parts* ought to be fomented and wash'd, both to clear them from the Filth proceeding from the *Cleansings*, and to mitigate Pain. The meaner sort use warm Water only; but most Women, when they have occasion for it, make use of a Decoction of *Barley*,

*ley*, *Chervil*, *Linseed*, *Agrimony*, *Marsh-mallows*, and *Violet-Leaves*. Ch. 2.

Astringents are not proper for eighteen or twenty days after Delivery; but when the Purgations are entirely over, they are very necessary in order to contract and strengthen the *Parts*, which are greatly relax'd and very weak. *Mauriceau* bids us take an Ounce and a half of *Pomgranate-Peel*, *half an Ounce of Acorns*, of *Cyprus-Nuts*, and *Terra Sigillata*, of each an Ounce; a handful of *Provence-Roses*, and two Drams of *Roch-Allum*; and having infus'd them a whole Night in about five half-pints of strong *red Wine*, to which, that it may not be too sharp, some *Smiths Water* may be added: I say, that he bids us boil it to a Quart, and having strain'd it thro a Linen-Cloth, foment the *Parts* with it Morning and Night, to strengthen and contract them a little. For tho Nurses tell Husbands, that they will give their Wives the Dimensions of Maids again, yet 'tis very well known that it can't be done.

Some Authors order the Skin of a black Sheep flay'd alive to be laid all over the Belly immediately after Delivery, alledging that the natural Heat of it comforts the *Parts* that have suffer'd. Monsieur *Clement* apply'd one to the *Dauphiness* in her first Child, but never afterwards, because it was thought it did more harm than good. Besides, the Circumstances and Rules to be observ'd are very troublesome; for we must always have a Sheep and a Butcher ready to flay it in the very Chamber, or at least in the House, that it may be laid on while it is hot. The Butcher who flay'd *that* which the *Dauphiness* us'd, having folded it up in his Apron, and brought it to the Bed-side; the Sheep all over bloody, rush'd into the Room after him, and came up to the very

Bed-side, which surpriz'd the Ladies, and put 'em into a very great fright.

The Woman's Belly must not be swath'd strait for some days, because both it and the *Parts* are *then* pretty sore, but may afterwards be swath'd straiter and straiter, as her Purgations diminish. We must not think, as Nurses do, that a strait Bandage serves to press the Womb up into its place, and keep it *there*, or that it expresses or squeezes out the *Lochia*; neither must we fancy that it prevents the Womb's hanging down, or being wrinkly. These are all Mistakes; for we may be assur'd, that it does much more harm than good; and that big Compresses and strait Swathing may well bruise or cause an Inflammation of the *Parts*, but can never do 'em any kindness. We ought therefore to lay nothing on the Belly; but a square Compress of fine soft Linen, to be kept on with a circular Bandage, and a Napkin, folded three or four times, will do very well.

If the Woman intends not to suckle her Child, the only thing she has to do, is to cover her Breasts well with a woollen Quilt, put betwixt two pieces of Linen, to keep 'em warm, for then 'tis easy to shift the Linen that's next her Breasts as oft as it is wet with the Milk that runs out of them: but if she designs to give Suck, she has nothing to do but to wait for the flowing of the Milk into her Breasts, as Nature hath appointed it.

CHAP.

## CHAP. III.

### *What Diet a Woman in Childbed ought to observe.*

NUrses who tend Women in Childbed fancy that they ought to eat more than ordinary, and feed high, in consideration of that great Loss of Blood which they sustain in Labour, and by their Cleansings. But they are grossly mistaken; for a Woman who is newly laid, ought to be treated as one in a Fever, or at least as one that's in danger of it every moment: for on the second or third day she seldom fails to have more or less of it, and ought therefore to be very regular and abstemious, taking only Broths, new-laid Eggs, and Jellies, during that time; and her ordinary Drink ought to be a Ptisan, that is to say, *Dogs-grass*, *Barley* and *Liquorish boiled in Water*, which they must not drink cold: but on the fifth day, when the Milk ceases to flow in so great abundance, she may be permitted to eat a little of a Chicken boiled or roasted, and some Porridge, and to drink White-Wine diluted with Water, allowing her to eat more as she gathers Strength, and recovers her Appetite: provided always that she eats less in Childbed than at any other time. Those however who are of a robust Constitution, and work hard, must not be retrench'd so much as others, and regard must be had to Custom and the Way of living.

She can't be kept too quiet; she must lie on her Back, with her Head a little rais'd; she must turn herself as seldom as possible; she must be

kept so warm, that she may be constantly in a breathing Sweat; she must not trouble herself with Family-Cares, or News; she must talk little, and see very little Company. No body is permitted to enter a Lady of Quality's Chamber for the first nine days, neither has she any other Light than *that* of a Candle, Night or Day. Let no ill News be brought to her, nor nothing be said to her that may make her uneasy. And in the last place, let her not point a Foot to the Ground till the tenth day.

The Citizens Wives have a Custom of making Entertainments for the Godfathers, Godmothers, and Relations, when the Child is baptiz'd. I don't find fault with it, provided the Woman has not the trouble of ordering it, and that 'tis made in a Room at such a distance from her, that she is not disturb'd with the Noise; and that nothing is sent from the Table to her which she may not safely eat a little of.

Let the Woman take an emollient and lenitive Glyster now and then, to wash and soften the Intestines, and to promote her Cleansings; but take care that it gives not Gripes, for it may do mischief.

*Mauriceau*, and some other Authors, order the Woman to be purg'd about the fifteenth or twentieth day, but most others not till six weeks are pass'd, that her Cleansings are quite over; alledging, that abundance of Women have more or less of *them* till that time: and 'tis certain that under the Levitical Law a Woman was not permitted to come into the Temple till the days of Purification were entirely over; and we read, that the Virgin *Mary* herself did not enter it till forty days were expired.

Women who are sickly, and abound with bad Humours, and have not had their Cleansings in sufficient quantity, must be purg'd; but those who are of a sound and healthful Constitution, who have a good Appetite, and whose Cleansings have been copious, may omit it, lest it do 'em some prejudice. The precise time when a Woman ought to be purg'd, can't well be determin'd. If the *Lochia* are over at the end of twenty days; if the Woman has had 'em in great quantity; and if she has any Indisposition which requires *Purging*, it may certainly be done with perfect safety to her; but if there's no urgent occasion for it, it ought to be put off much longer: for tho some Womens Purgations are over in three weeks time, yet there are a great many others who are not cleans'd in less than six. Women lately brought to bed are likewise forbid to travel in Coach or on Horseback before this period, lest the jolting and uneven Motions occasion a descent and falling-down of the Womb. 'Tis true, that some have travell'd sooner, and have sustain'd no prejudice by it: But they exposed themselves to danger, and acted very imprudently. No Woman ever got harm by taking a discreet care of herself, but a great many have had cause to repent that they did it not. Ch. 3.

CHAP.

## CHAP. IV.

### *Of Floodings in Women newly deliver'd.*

WE have discours'd of Floodings in Women with Child, in the 13th Chapter of the second Book; and of those which accompany *Labour*, in the 26th Chapter of the third Book: and now proceed to consider those which happen after *it*. Women who are *Plethorick*, and bring forth big Children, are more subject to Floodings than others, because of the greater Distension of the Womb, and because the *Placenta* is bigger, and of consequence the Vessels *also* which bring Blood to it, and which when it is separated from the Womb, pour forth the Blood in great abundance. Those Women ought to be blooded three or four times during Pregnancy, and likewise a few days before Labour, to diminish the quantity of Blood, and divert it from running into the Womb, as before.

This Flux of Blood is owing to one of these four things. 1. A too sudden and violent pulling and separating of the After-Birth from the Womb. 2. A false Conception remaining in it. 3. Some part of the After-Birth not brought away. 4. Some Clods of Blood lying in the bottom of the Womb, which distend it, and hinder the Vessels from shutting. In a word, whatever Cause it proceeds from, it is always dangerous; and if the Artist finds not a speedy Remedy against it, the Woman is sure to die on the spot.

If

If it is occasion'd by a false Conception, or some Portion of the *Placenta* retain'd in the Womb, or Clods of Blood distending it; these extraneous Bodies must be instantly fetch'd away; for *then* the Womb contracts, and the Flux for the most part will either cease, or abate: but if it continues, bleed the Woman in the Arm in proportion to her Strength, putting your Finger on the Orifice of the Vein from time to time, to make a Diversion, and hinder the Blood, as has been said, from flowing to the Womb in so great a quantity: and for the same reason let her Head lie lower than her Body; order her to lie very still; let the Windows be open'd now and then, that the Room may be kept cool: cover her lightly, and let not her Linens be warm'd before they're put on, for fear of heating the Blood, and increasing the Flux. Ch. 4.

*Mauriceau*, contrary to the opinion of all Mankind, orders strong Glysters to be given in this case, and tells us, That he practis'd it with success upon a Woman, who having render'd the Glyster, voided with it a Pan-full of hard Excrements, which he alledges occasion'd the Flooding. But tho we grant that the Woman was cur'd, because he says so, it does not therefore follow that the Glyster did the business, or that we must write after his Copy.

If, in spite of all these Remedies, the Flooding does not cease, take the Woman out of Bed, lay her in the coolest place of the House, apply to her Loins Napkins dipt in *Oxycrate*, or wrap her whole Body in a Cloth dipt in it, and let her drink a glass of it from time to time; inject *Plantane-Water* into the Womb, and give the Woman a little of the Juice of *Purslain* alone or mixt with Broth every quarter of an hour. Let her Drink be *Red Wine*, diluted with Water in

which

which Iron has been extinguish'd; and to recruit her Strength, let her take a little strong Broth, some Spoonfuls of Jelly, or Yolks of new-laid Eggs, pretty often, but no solid Food. Lastly, it will not be amiss to add some Spoonfuls of a *Pearl*-Cordial to her Broth, to keep up her Spirits.

These are the best Remedies against Flooding; which is often so very violent, that we have not time to make tryal of 'em, but have the mortification to see the Patient die in the Arms of those who are doing all that's in their power to help and save her. Floodings however prove not always mortal, and therefore we must not give a Woman over for lost; only if she has the good fortune to escape, she must not expect to recover, or get entirely above it for some time: for Women in these Circumstances are usually troubled with the Headach, Shiverings, Feverishness, and Weakness; but with good Management, Care and Time, never fail to do very well again.

## CHAP. V.

### *Of After-Pains.*

AFter a Woman is deliver'd, she is ordinarily troubled with Pains in the Womb, which are very distinguishable from *those* of the Belly, and come by Intervals, as Labour-Pains do. They seize the Woman within some Hours after she's *laid*, and cease the second or third day. Women are very rarely afflicted with them in their

their first Child, but generally speaking complain heavily of them in the rest. Ch. 1.

We are far from thinking that they proceed from the four Causes which *Mauriceau* assigns. The first is Wind, and then the Woman may be said to have the *Cholick*, and not After-Pains. The second is Clods of Blood, and in that case there's Flooding, of which we have spoke in the preceding Chapter. The third is a sudden Suppression of the *Lochia*, which cannot be, because it happens some days *only* after Delivery, whereas After-Pains begin to torment the Woman soon after she's laid. The fourth is a great Distension of the Ligaments of the Womb; but Pains owing to this Cause are only felt in the Loins, and not in the Womb, as After-Pains are. And therefore, upon the whole, we must try to find out the true cause of 'em; which is probably this, That the Orifices of the Vessels, out of which the *Lochia* flow, readily give way to 'em the first time that they are open'd; but being afterwards shut, and as it were cicatriz'd, open not when the Woman brings forth again without a great deal of difficulty, which puts her to great pain for two or three days.

Most Women, but especially those who have had several Children, patiently suffer their After-Pains, because they know that they will be of short continuance, and that they are not dangerous. In prevention of these Pains, several Women take a Mixture of equal Parts of *Oil of Sweet Almonds* and *Syrup of Maiden-hair*; others have a mighty opinion of Broth made of an old Partridge and Leeks, which they take after Delivery.

Others again are very impatient, and call for help, which we are by no means to deny 'em; tho we are sensible that it is very difficult to ease them of

of their Complaints. Let us therefore apply warm Napkins to the Belly, and shift 'em as they grow cold: let us anoint the Belly with *Oil of Sweet Almonds*, or *Oil of Walnuts* warm, and clap a Pancake of Eggs fry'd with Oil of Walnuts upon it. We must forbid 'em to drink their Ptisan, or any other Liquor cold, and must order them emollient and anodyne Glysters, with Oil and fresh Butter added to them. While we use these Remedies, which are truly of some use to the Patient, two or three days pass, the After-Pains cease, and then all is well.

## CHAP. VI.

### *Of Contusions and Lacerations of the* Parts, *caus'd by Labour.*

A Woman's first *Labour* is of all others by far the most painful; for when the *Parts* are *once* sufficiently dilated, they distend and open more easily afterwards. In the first *Labour* also, if the Child is strong and lively, and makes great Efforts to get out of its Prison, it is apt to make Contusions, Lacerations, and Excoriations of the *Parts*; which if neglected, frequently degenerate into foul and malignant Ulcers.

If the Child's Head is too big, and compresses the *Parts* against the Bones which form the Bason and Passage, or if the Passage is naturally too strait, Excoriations and Contusions, attended with an Inflammation of the *Parts*, must necessarily follow. In this case, let an Anodyne Cataplasm, made of *Milk*, *Crumbs of Bread*, *Yolks of Eggs*, and *Oil of Sweet Almonds*, be apply'd for some

some days; and as oft as this Cataplasm is renew'd, let the *Parts* be wash'd with a Decoction of *Barley*, *Mallows*, *Marsh-Mallows*, *Violet-Leaves*, and *Linseed*. The *Oil of St. John's-Wort* and of *Eggs* drawn without Fire, are very proper; but if the *Parts* are only bruis'd, they must be fomented with a Decoction of *Barley* and *Agrimony*, to which a little good *Honey* may be added, to make it the more detersive: and if in spite of all that we can do, an Abcess in the *Labia* is form'd, and tends to a Suppuration, the *Parts* must be open'd when the Matter is ripe, and we must treat the Ulcer as we do *that* of other Parts. Ch. 6.

If the *Perinæum* is rent, it must be cured by a Suture, as I have taught in my Course of Chirurgical Operations, and in the 27th Chapter of the third Book of this Treatise.

The Bladder also being contiguous to the Womb, suffers often in difficult Labours, especially if the Child's Head, from its bigness, stops any considerable time in the Passage, for *then* it presses the Neck of the Bladder so closely against the Share-Bone, that it bruises it very much; and that after delivery an Inflammation supervenes, which causeth a difficulty of Urine, that is to be remedied by introducing a *Catheter* into the Bladder for some days, to draw off the Urine, till the Inflammation is remov'd by proper Remedies.

CHAP.

## CHAP. VII.

### *Of the Descent of the Womb, of the Relaxation of the* Anus, *and of the Hemorrhoids.*

WE have already distinguish'd betwixt the Womb's bearing-*down*, and falling-*out*; and have shewn, that the first is only a Relaxation of the Womb, and the second a *Precipitation* of it, as Authors term it, or falling-out of the Body.

There are two sorts of Descents; *one* when the Womb falls into the *Vagina*, and reaches the *Caruncul*æ *Myrtiformes* only; the *other*, when it falls so low, that we can plainly perceive its internal Orifice, tho it hangs not out of the *Pudendum*.

The Precipitation or falling-out of the Womb is likewise of two sorts: in the *first* it comes quite forth, but is not turn'd inside out, nor can the inside of it be seen, but only its Orifice, which is join'd to a great round Lump of Flesh, which is the Womb itself. In the *other*, the Body of the Womb is not only fallen out, but its Bottom is turn'd quite out, so that it looks like a great piece of bloody Flesh hanging betwixt the Woman's Thighs.

This bearing-down of the Womb proceeds always from a Relaxation, and not the Rupture or breaking of its broad Ligaments, as some Authors fancy'd. And tho a great many things may be assign'd as the causes of it, yet the most ordinary and principal *one* is difficult and unnatural Labour. Maids are not only subject to it, but

but to a falling out of the Womb also, which Ch. 7.
*Mauriceau* tells us he has put up into its place in *several*, after they had been grievously afflicted with it some Years.

I persuade myself that I have found out another cause of it, which no Author ever thought of to this day, because they understood not the true use of the round Ligaments of the Womb. All the Antients were of opinion, that these Ligaments serve only to hinder the bottom of the Womb from mounting too high; whereas I am very well assur'd, that they pull it downwards. And in my Anatomy of human Body, I have made it appear, that these Ligaments are muscular, and that when they act, being swell'd and shorten'd, they pull the Womb down towards the *Penis*, for the more convenient Reception of the Seed in the Venereal Act. Besides, the Womb is join'd *so* to the *Vagina*, that it cannot retire. There is therefore no occasion for Ligaments to hinder its ascent, but rather to bring it downwards in the *Act*, as has been said. And as this is the true use of these Ligaments, so 'tis easy to conceive, that in Women and Maids that are very lascivious, they may pull the Womb downwards so often, and with so great force, that the Relaxation or Bearing-down that we speak of, may frequently ensue.

A Woman in this Circumstance feels a great weight at the bottom of her Belly, great difficulty in making water, and a pain in the Region of the Loins. Wherefore a present Remedy must be found for this Complaint, for 'tis not easily cur'd when it is of any little standing.

If the Womb is only swell'd by a Suppression of the *Terms*, we must try to procure for *her* the benefit of Nature: if it proceeds from the weakness of its Ligaments, they must be streng-

then'd by Astringents boil'd in *red Wine*, in which we must dip Compresses, and apply them to the Reins and Belly, having first put the Womb up into its place: which may sometimes be done by laying the Woman on her Back, with her Hips rais'd higher than her Head; or by laying the palm of the Hand upon the lowest part of the Belly, and pushing the Womb gently upwards; or by introducing into the *Vagina* a wax Candle of the Figure of the *Cannula* △. Some are of opinion, that the Husband's Yard will do better. But they are very much mistaken; for there's so great a Sympathy betwixt the *Parts* in both Sexes, that they scarce know how to part *at first*. 'Tis true, that the *Penis* seems to be pretty well qualified to thrust the Womb back into its place; but the misfortune of it is, that so soon as the Man retires, the Womb follows, and *bears down* more than before.

When the Womb is fallen out, and the inside can't be seen, but its internal Orifice *only*, 'tis not so difficult to put it up into its place, as to keep it in. In order to which, a Pessary must be introduc'd into the *Vagina*. I have caus'd to be inserted some of 'em of different Figures, as you may see in the 27th Chapter of the 3d Book of this Treatise. They are ordinarily made of Cork, that they may not feel heavy, and are dipt in melted Wax, to fill the Pores, that the unevenness of the Surface may not hurt the *Parts*. If they are made of Silver, they will be neater. Some are of an oval Figure, like *that* marked G. Its bigness and length are proportion'd to the Neck of the Womb, into which it is to be introduc'd, and *where* it is to remain. Its String H, serves to pull it out when there's occasion, and to tie it to a Ribbon that goes round the Body, that it may not fall to the Ground when

a Woman walks, as it frequently happens, especially when she has her *Courses.* Some are of a round Figure, like *that* mark'd I; others resemble a Pudding for a Child's Head; see the Letter K. They have a large Hole in the Middle, through which the *Menses* pass, and which receives and sustains the internal Orifice of the Womb: They ought to be made somewhat large, that they may keep in the better. One has a String, to pull it out by; the other none, because some chuse to do it with their Fingers. Chap. 7.

But when these Pessaries are once fix'd in the *Part*, they must not be pull'd out, since, if they are well fitted, they neither hinder the necessary Secretions and Discharges of the Womb; neither are they any way troublesome, but permit the Woman to enjoy her Husband, and to conceive *too*, of which several Instances might be brought were it worth while. Such Things as are proper to mundify and strengthen the Womb, may be also injected into it, notwithstanding these Pessaries, with the Help of a Woman's Syringe M, whose Pipe N is made crooked, that the Patient may do it with her own Hand.

When the Womb is turned in-side-out, like a Purse, it must be instantly thrust up again. And seeing this happens very often through the Fault of the Midwife, who pulls the After-Birth, which adheres to it, too rudely by the Navel-String; so soon as she perceives that the Bottom of the Womb comes out with the After-Burden, she ought to separate it from it, and put it back into its place; which she may *then* do with a great deal of Ease, because the internal Orifice is very much dilated: whereas if she delays it, it contracts by little and little, and it is very difficult to replace the Womb; and, as I have seen it my

self, the Woman often dies for want of Help in time. However, if the Surgeon is call'd soon enough, and sees a kind of bloody *Scrotum* hanging out betwixt her Thighs, he must lay her on her Back, with her Buttocks rais'd higher than her Head: Then having fomented the Parts with Wine and Water luke-warm, he must put it gently up into its Place. But if this can't be done easily, let him anoint the *Part* with Oil of sweet Almonds, to facilitate the Reduction by softning and relaxing the Fibres. But if he finds it altogether impracticable, either because the Part is much swell'd, or because he is called too late, there is great danger of its gangreening in a little time. And in this Case some Authors propose the Extirpation of it; and have the Assurance to tell us that they have try'd it with Success. But for my part, I shall not believe them, till I see the Experiment made by some body who thinks that the Operation will not kill the Woman, as I am persuaded it will.

As to the Indispositions and Accidents which happen both to the Internal Orifice, and Neck of the Womb, 'tis not fit that the Surgeon should trust to the Reports or Accounts that the good Women give, for they very often mistake, or are less exact than they ought to be: He must therefore judge for himself; and in order to it introduce the little Dilator O into the *Vagina*, and separate the *Labia*, which will give him an Opportunity to discover what is amiss *there*. He may likewise make use of the other Dilator P, with two Branches, or of the third Q, called the *Speculum Matricis*, which has three; and having introduc'd them softly into the *Vagina*, and then turning the Skrew mark'd R, they they will dilate the Parts, and by the Space that is left exhibit the internal Orifice distinctly to his

his View; which will enable him to form a right Judgment of *Things*, and to find out proper Remedies. Chap. 7.

In hard Labours, whatever pains the Woman takes to the contrary, she frequently voids her Excrements; wherefore the Moment that we are satisfied that her *Labour-Pains* have seiz'd her, we ought to give her a Glyster. The Fundament also in this Case is apt to fall out; and then the Surgeon must beg of the Mother to moderate her Cries and Efforts, and during her Pains must apply a soft Cloth doubled several times to the *Anus*, to prevent its falling out: But if that does not, he must attempt nothing till she is deliver'd; *when* having wash'd the Intestine with warm Wine, he must reduce it, taking care not to give her Glysters, especially sharp ones, during her *Lying-in*, lest Gripes occasion the Fundament to fall down again.

Women subject to the *Hemorrhoids* or *Piles* are plagu'd with them all the Time they are with Child, and particularly for some Days after Delivery, by reason of the Compression of the Vessels. In this Case the Surgeon has nothing to do but to apply such Things as are *anodyne*, or ease Pain: But if there's an absolute Necessity for emptying the Vessels by Leeches, let him not use them for the first eight Days, lest he divert or diminish the Evacuation of the *Lochia*.

## CHAP. VIII.

### *Of the* Lochia *or Cleansings in Child-Bed.*

HUmours which flow from the Womb after Delivery are call'd *Cleansings*. 'Tis necessary that Women should discharge these bad Humours that are ordinarily retain'd in the Womb while they are with Child; for if they do not, it is of ill Consequence, and they very rarely enjoy good Health afterwards.

Those Authors who wou'd have us think that the *Lochia* flow longer when a Woman brings forth a Girl, than when she has a Boy, are very much mistaken, for there's no difference betwixt one and the other. It is true that some Women have *them* for a shorter, others for a longer time; but that depends entirely upon the Constitution of the Woman, and the Circumstances she is in in Child-Bed. And therefore the most we can say, with any Certainty, is, That in some they flow fifteen or twenty Days, in others five or six Weeks; and that a Woman can't be said to be absolutely cleansed and purified in less than forty Days.

In order to form a right Notion of *Cleansings*, and to find out a Remedy against them when they are irregular or bad, we must consider both their Quantity and Quality. As to their Quantity, it can't well be determin'd; some have more, some less, according to the Temperament, and the good or bad State of their Health. The same Woman also has more of them in one Lying-in than another. This we know, that they flow more

more copiously the first Days, and that the Quantity diminishes every Day till they entirely cease. *Mauriceau* says that they flow in greater abundance when the Child is big, because both the *Placenta*, and the Vessels by which it is join'd to the Womb, being then likewise bigger, pour forth a greater Quantity of Blood than ordinary when it is separated from it. But tho that can't be denied, yet the Flooding caus'd by the separating the After-Birth from the Womb is by no means to be confounded with the Cleansings, by which we understand that *Running and Discharge* of Humours from the Womb which all Women have, in greater or smaller Quantity, each time they bring forth. Besides, we see that Women who are subject to Floodings either when they are with Child, or in Labour, have not their Purgations so copious: Wherefore, contrary to the Opinion of *Mauriceau*, those who have lost a great deal of Blood upon the Occasion of the separating the *Placenta* from the Womb, ought to have 'em in smaller Quantity *also*. 

So soon as a Woman is delivered, those Waters, which ran not off when the Membranes broke, are let out; and when the After-Burden is brought away, the Effusion of Blood is greater or smaller, according to the Diameters of the Blood-Vessels. And the Womb afterwards contracting, and returning to its former State, these Vessels for the first two Days pour forth only a bloody *Serum*, which by degrees grows whitish, and is mix'd with a *Lympha*, which transudes through the Substance of the Womb, which grows smaller and smaller, as it discharges it self of this *Lympha*, with which it was irrigated. At last these Cleansings grow whiter,

and are not very unlike to thick Milk, insomuch that it is the receiv'd Opinion that they are truly Milk, which in *those* who do not give Suck flows into the Womb. *Mauriceau* pretends to refute this Opinion, because there are no Vessels to carry the Milk from the Breasts to the Womb. But did we maintain that all the Milk that's separated in the Breasts whilst a Woman is in Childbed is carried from them to the Womb, his Argument wou'd be pretty conclusive: But tho we own that there are not Vessels to carry the whole Quantity, and that the *Anastomoses* of the *Mammillary* Veins with the *Epigastrick* are imaginary, yet he must likewise grant that the Milk may be carried to the Womb by way of the Circulation.

In vain have a great many Authors, of which number I once made one, endeavour'd to find out a Passage betwixt the Breasts and Womb; but there can be no such Thing, for Reasons which I shall produce in another Place. In the mean while the Matter stands thus: Soon after Delivery, a *Chylous* and Milky Liquor, mixed with the Blood, is carried with it to the Breasts, which are appointed by Nature to receive it, and fills them *so* in the space of three Days, that they can receive no more; and *then* the *Milk-Fever*, as it is call'd, seizes the Woman, and the Milk regurgitating, mixes with the Blood again, and circulates with it, till arriving at the Glands and Pores of the Womb, which are still open, it is secreted in them, and flows with the *Lochia* till the Womb is fully contracted, and hath recovered its former State. The Milk contain'd in the Breasts being attenuated *there*, its thinner Parts go off gradually by insensible Perspiration: A part of the

the *Serum* runs out of the Nipples, and the grosser Parts often cause Impostumes, especially if the Woman catches the least Cold. Chap. 8.

When we open the dead Body of a Woman with Child, we find the Blood-Vessels of the Womb full of thick Blood of a dark Colour, which has made too long a Stay *there*, not being able by reason of its Weight to reascend, and join the Mass of Blood. This is not the Menstrual Blood, as some fancied, but *that* which returns from the Infant, after the more fine and subtile Parts of it have been laid out upon its Formation and Nourishment. And 'tis this Blood that, the Moment the *Placenta* is separated from the Womb, is the Matter of these great and terrible Floodings, which are so very frequent and dangerous.

Tho we bleed a Woman with Child ever so oft, yet we shall not meet with Blood of the ordinary Fineness; for the subtiler Parts being spent on the Child, the Veins are fill'd with the Lees and Refuse of it *only*. But when her Childbed Cleansings are over, and the Evacuation is duly made, the Blood is rectified, and rather finer than it was before. The Truth of which appears by this, That if we let a Woman blood two Months after Lying-in, her Blood is of a lively red Colour, of the proper Consistence, and very different every way from what it was when she was with Child.

Women receive considerable Benefit by their Cleansings; which purify their Blood, and make them healthful. Thus we see a great many Women enjoy better Health when they *bring* a Child every Year, than when they have given over Child-bearing.

When I said that the *Lochia* ought to flow for fifteen or twenty Days, or more, I meant it of Women

Women who go the full Time, and not of *those* who miscarry in the second, third, or fourth Month; for the *Fœtus* being small, and in the Womb for a short time only, requires but little Nourishment, and robs them not of the finer part of the Blood, but in a very small Quantity.

I beg leave to hint one Thing to the Woman newly deliver'd, which is, That she may not suffer her Husband to *approach* her too soon, lest the Womb, which is brought forward in the *Act*, fall down, or she prove with Child before her Cleansings are entirely over, and the Child have the Fate of *those* who are begot when the Mother has her *Courses*, that is to say, be weak and scabby.

## CHAP. IX.

### *Of the Suppression of the* Lochia *or Cleansings.*

EVERY one knows that the most dangerous Symptom or Accident that can happen to a Woman newly delivered, is *that* of a Suppression of the *Lochia*, especially if it is total, and in the first three or four Days, when they should come down plentifully.

A Suppression of the *Terms* is truly a considerable Distemper, but *that* of the Cleansings is much more dangerous, because 'tis attended with more terrible and urgent Symptoms, which call for a more speedy Remedy. An Inflammation and Tension of the lower Belly, caus'd by the

the Retention of the Humours, which are very much heated, and quickly corrupt, an acute Fever, a vehement Pain in the Head, Pains in the Breast, Difficulty of Breathing, Palpitation of the Heart, *Syncopes*, Convulsions, and a great many other Accidents, are the ordinary and genuine Effects of the Suppression of the *Lochia*; and fail not to kill the Woman, if proper Methods are not taken without any Loss of Time. Chap. 9.

The Suppression of the Cleansings frequently proceeds from some strong Passion, as Anger, Fear, Grief, or Sadness, occasion'd by some bad News; therefore nothing ought to be told to a Woman in Childbed that can make a great Impression upon her, or disquiet her in the least. It is alledg'd that Perfumes are very prejudicial in this Case; and therefore no body that makes use of 'em is permitted to enter the Chamber of Princesses or Ladies of Quality. And when the late *Dauphiness* lay in, the Usher had Orders to put back all the Ladies about whom he smelt them.

To bring the *Lochia* well down, let the Woman keep her self very quiet, and speak as little as may be: Let her lie on her Back, well cover'd up to her Chin. Give her a Mixture of the *Syrup of Maiden-Hair*, *Oil of Sweet Almonds*, *and Juice of Oranges*. Let her Diet be Jellies and Broths; let her Ptisan be made with Aperitives, such as *Roots of Succory*, *Dogs-Grass*, and *Asparagus*, which she may drink warm from time to time, with an Ounce of the *Syrup of Maiden-Hair*; let Glysters, to which *Mel Mercuriale* is added, be given; and let her lower Parts be fomented with an emollient and aperitive Decoction made with *Mallows*, *Pellitory of the Wall*, *Camomile*, *Melilot*, *Roots of Asparagus*, and *Linseed*. Let this Decoction be likewise injected into the Womb;

Book IV. Womb; and, with the Herbs, so well boiled, that they may pass through a coarse Searce, let a Cataplasm be made with an addition of *Hog's-Grease*, and apply it very hot to the lower Belly, warming it from time to time in the same Decoction: Let the Inside of her Thighs and Legs be strongly rubb'd downwards. Lastly, let large Cupping-Glasses be apply'd to the uppermost part of the Inside of her Thighs.

Tho all these Remedies are very proper, yet Blood-letting is the most efficacious, because it discharges in a moment a part of the Blood and Humours which cause these Disorders: We must therefore begin with it, and repeat it as often as the Case requires it. It is customary on this occasion to blood in the Foot; and had a Surgeon not many Years ago propos'd bleeding the Woman in the Arm, every body would have condemn'd him, fancying that it was the ready and sure way to kill her. But *Mauriceau*, who it seems had more Courage than others, has directed it, and affirms that the superior Parts ought to be emptied before the inferior *ones*, and gives several Reasons for it in his Book, to which I refer the Reader.

As there's no general Rule without an Exception, so I have known Women who have had their Cleansings in very small Quantity without any bad Symptoms, or notable Prejudice to their Health afterwards; especially if they happen to have a Looseness, or great Sweatings, in Childbed, for these Evacuations supply *that* of the *Lochia*, which they have less of than others.

CHAP.

# CHAP. X.

## *Of the Inflammation of the Womb after Delivery.*

THO we have said in the preceding Chapter, that the stopping of the *Lochia* causes an Inflammation of the Womb, yet we are far from affirming that it is the only Cause of it; for sometimes it proceeds from a Fall, Hurt or Blow, from bad Labour, or some Portion of the After-Birth left behind in the Womb. It likewise happens if the Midwife or Nurse straitens the Womb too much by Compresses and Swaths, or if the Child, which is too big, struggling hard to make its Egress, chances to bruise it. Those who pretend to explain things by Sympathy, forbid us to throw the After-Burden into the Fire. 'Tis an easy matter to gratify 'em in this, and it is but fit we should; for if the Womb happens to be inflam'd, tho we point out the Cause of it with the greatest Certainty, yet they will hear of no other than *that*.

An Inflammation of the Womb may be known by an acute Fever, Pain, Weight, and Tension of the Part, a Difficulty in making Water, Pain in voiding the Excrements. It is also often accompanied with a Hiccough, Vomiting, a *Delirium*, Convulsions, and several other mortal Symptoms.

Let the Patient have a cooling and spare Diet, drinking only weak Broth made of Veal or Pullets, with *Lettice*, *Purslane*, *Succory*, *Borrage*, *Sorrel*, or the like. Let her Ptisan be made of *Succory*, *Dogs-*

*Dogs-Grass*, *Strawberry-Leaves*, *Barley*, and *Liquorice*, putting an Ounce of the *Syrup of Water-Lilly* to a Glass of it, from time to time. She may likewise drink Emulsions made with the *Cold Seeds*, *Barley-Water*, and *Syrup of Violets*. Let her Body be kept open with simple Anodyne Glysters, and let her lie still.

Bleeding is a most powerful Remedy in this Case; and therefore we must begin with it, and repeat it in a short time. *Mauriceau* orders us to let blood once or twice in the Arm before we do it in the Foot; but since our Intention is only to diminish the Quantity of Blood and Humours, it matters not whether we let blood with the *French* in the Arm, or with the *Spaniard* in the Foot; for we may promise to our selves equal Success from one or t'other.

In the Cure of this Distemper we must not make use of Things that have the least astringent Quality, lest they stop the Cleansings; neither must we use *Repercutients*, and such Medicines as are excessively cold, but must keep the middle way, carefully avoiding all Things that are hot, and increase the Flux of Humours.

But above all, let us shun Purgatives, how mild soever; for as they are prejudicial in all Inflammations and Fluxions on the Womb, they are particularly *so* here. And since it is observ'd that Bleeding about the time that the Menstrual Flux returns does no harm, but Purges do a great deal, we ought by all means to forbear prescribing them in such a dangerous Case as this.

# CHAP. XI.

## *How to dry up Milk in those Women who are not willing to give suck.*

IF Women did their Duty as they ought, they wou'd all be Nurses, for several Reasons, which I shall give in the end of the Sixth Book of this Treatise: But now-a-days not only Ladies of Quality, but even Citizens and ordinary Tradesmens Wives, refuse to suckle their Children, and therefore are forc'd to use Remedies to dry up their Milk; tho it were better to use none, but only to keep their Breasts warm, by covering them with Linen-Cloths or little Quilts.

Milk naturally flows to the Breasts after Delivery, and they begin to be pain'd and grow big, and the third Day are so fill'd with it, that the Woman is seiz'd with a Fever. We must not be so credulous as to believe that a Linen-Rag dipt in any Liquor, and applied to the Breasts, will drive back the Milk, and change the ordinary Course of Nature. However, tho the Surgeon expects very little from such Applications, he must by no means omit them, for the satisfaction of conceited Women, who are apt to think themselves neglected, if something of this nature is not done, and will not fail to make loud Complaints of him, if they have any Disease of the Breasts afterwards. He may therefore apply to 'em equal Quantities of *Populeum Ointment* and *Galen*'s *Cerate* spread on brown Paper. The *Dregs of strong Wine*, in form of a Cataplasm, are also proper. Mid-

wives

Book IV. wives dip a Linen-Rag in warm Verjuice, in which a little common Salt is dissolv'd, and lay it on the Breasts.

But whatever pains we take to hinder the Milk from flowing plentifully into the Breasts, or whatever Remedies we make use of to drive it back, the more serous part of it very often either runs out at the Nipples, or goes off by insensible Perspiration; and the rest being detain'd in the Glands, make the Breast hard and painful, and ends in an Abcess, if care is not taken to attenuate and discuss it before 'tis too late. In order to which, we may first apply Anodyne Cataplasms, made of *Milk, Crumbs of Bread, Yolks of Eggs*, and *Saffron*, and afterwards take the *Four-Meals* instead of the *Bread*, and put some *Honey* to it. Some make a Cataplasm with *Honey, Yolks of Eggs*, and *strong Wine*, of which I have seen pretty good Effects. But the best of all is, to boil *Hemlock in Urine*, and apply it to the Breast, and to cover it with a Compress dipp'd in the same Urine. I have seen this dissolve hard Tumours of the Breasts, which were thought to be cancerous. The Belly must be kept open: We must endeavour to procure for the Patient a large Evacuation of the *Lochia*. She must keep very quiet, and take neither Broth, Porridge, nor more than will just keep her from starving.

Most Women are no sooner eas'd of this Complaint, but, being insensible of their Happiness, they begin to fret, and are troubled to see their Breasts so soft and flabby, and call for Medicines to make 'em as plump and firm as before; but do not consider that Astringents, which *alone* are proper for this purpose, are most prejudicial, because they hinder insensible Perspiration: and therefore we must not humour them too much in this,

this, but must allow them to anoint their Breasts with the *Oil of Walnuts only*, which Nurses have a mighty opinion of. They may likewise dip Linen-Cloths in *Myrrh-Water*, and apply them to the Breasts; for it is both safe and proper. Ch. 12.

Since we treat here of the Diseases of the Breasts, we hope that it will not be taken amiss that we set down in the following Chapter a part of what I have already deliver'd in my Course of Chirurgical Operations, that the Reader may not be oblig'd to read two Books upon the same Subject, writ by one and the same Author.

## CHAP. XII.

### *Of an Excoriation of the Nipples, and of an Impostume of the Breasts.*

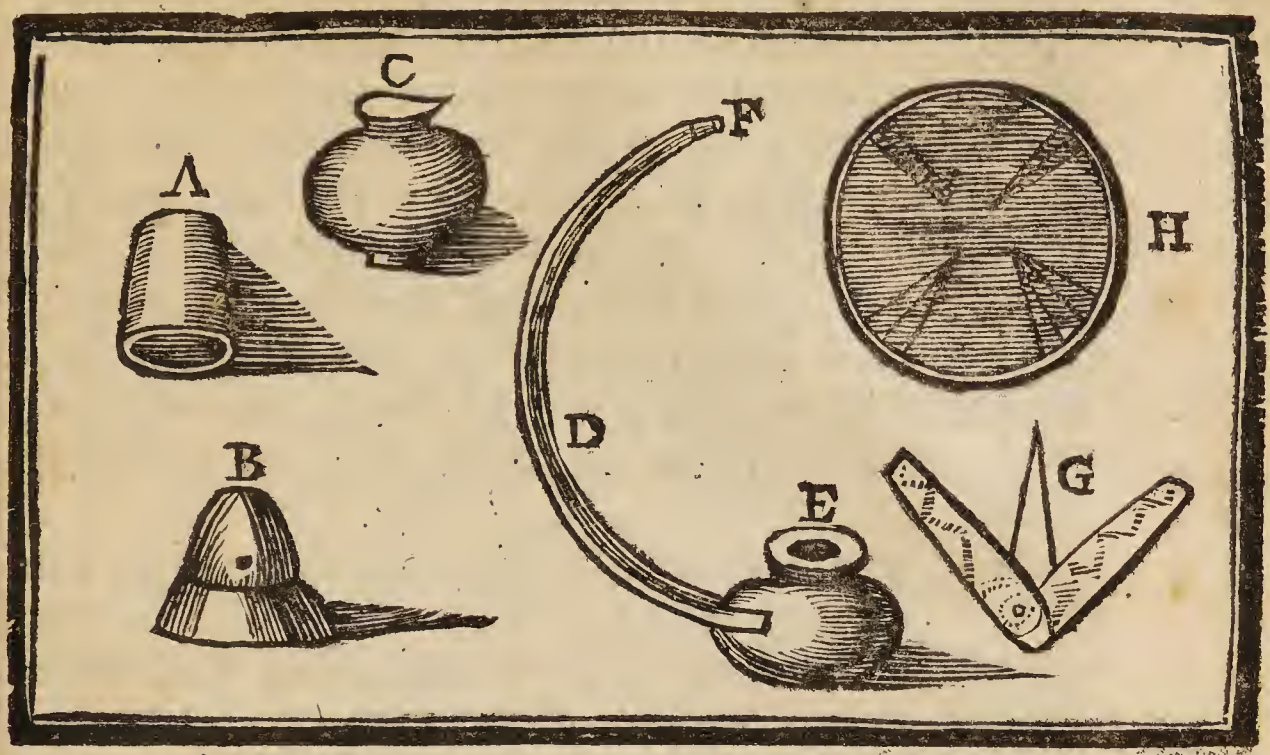
THE Breasts, which make one of the principal Ornaments of the Fair Sex, and which are so necessary for conveying Nourishment to the Child, are not more exempt from Diseases, nor less subject to the Surgeon's Hand, than other Parts of the Body; but very often have the most terrible and cruel Operations necessarily perform'd upon them.

We distinguish the Diseases of the Breasts, and the Operations which they require, into two Parts; namely, those of the Nipples, and those of the *Mammæ*, or Breasts themselves.

The Nipple is that Eminence that jets out in the Middle of the Breast, *where* all the *Lacteal* Tubes terminate, which pour the Milk into the

Child's Mouth. If the Nipple is too small, the Child has much ado to lay hold of it, and only fumbles and plays with it; and if it is too big, it fills its Mouth so that it can't suck: But a well-proportion'd one is about the bigness of a Hasle-Nut, and somewhat longer, that the Infant holding it betwixt its Palate and Tongue, may receive the Milk the easier, tho it suck never so little. The small Pipes, through which this Liquor runs before the Child has occasion to suck, can neither be too close nor small, without fatiguing the Infant, who endeavours all that he can to make an Expression of the Milk. They must therefore be pretty much dilated, that when we take the Child from the Breast as soon as it has drawn the Nipples, we may see the Milk stream out in several Spouts, like a Garden Water-Pot. When the Milk flows in this manner, the Child has nothing to do but to swallow it; and this Condition, with several other Qualities, serves to make a good Nurse.

In Women which have never given suck the Nipple is form'd with difficulty, the Child has much ado to lay hold of it; and when that's done, quickly lets it go, because 'tis not yet drawn enough: And this is what Women call *Not having the String broke*, because it is retain'd, as it were, by a small String. The manner of formming it, is to cause the Woman to be suck'd by a Child three or four Months old, who being stronger than her own new-born one, can better manage and mouth the Nipple; or else to order the Nurse, or one of those Women whose Business it is, instantly to draw it. That done, put on the small Cap *A*, made of *Box*, and shap'd like a Woman's Thimble; which is hollow in the Middle to receive the Nipple, and open at the end, and pierced on the Sides




Sides to let out the Milk. This Cap which is not taken off but when the Woman gives suck, forms the Nipple very well: But the other, mark'd *B*, is still more commodious, because it has a Brim like that of a Hat, which prevents its hurting the Breast.

Some Children, not finding Milk enough to satisfy 'em, suck the Nipple so eagerly, that it is chapp'd and cleft at its Basis, and looks as if it was ready to separate from the Breast. This happen'd to be the Case of several of the late King's Nurses: He bit the Nipples of those who had not Milk enough; and because they cou'd not endure or dispense with it, they were frequently chang'd, till at last they luckily lit on Madam *Ancelin*, a Native of *Mountesson*, who, having abundance of Milk, furnish'd him with as mch as he crav'd, and nurs'd him for sixteen Months, when 'twas thought proper to wean him. So that 'twas she who laid the Foundation of that vigorous Health which he enjoy'd almost to the last.

The Milk running plentifully into the Breasts upon a Woman's lying in, frequently curdles and hardens; which proceeds either from her catching cold, or uncovering her Breasts too soon, or from dressing so strait, that they are press'd too much; about which they cannot be too cautious. They must keep their Breasts well cover'd with quilted Linen-Cloths, to prevent the Milk's coagulating, and to open the Pores, by which it must be evaporated in those who do not give suck.

Milk is apt to curdle when the Glands of the Breast are obstructed, when a Woman has not given suck for some considerable Time, and when she has catch'd cold in them: We say then that she *has the Hair*. And this Indisposition gives them a Fever for twenty four Hours, and more. When this proceeds from Obstructions, we must anoint the Breasts with *Oil of Sweet Almonds*, and make use of Anodyne and Emollient Cataplasms; but if it is owing to too great a Quantity of Milk, it must be remedied by Bleeding and a spare Diet; and if it proceeds from Cold, we must take care to put the Blood into a brisker Motion, and to keep the Patient somewhat warmer than ordinary.

'Tis the Surgeon's Business to evacuate the Milk that is curdled in the Breast; for if it makes a long stay *there*, an Abcess must unavoidably ensue. This is to be done two ways, Insensibly or Sensibly.

*Insensibly*, that is, by *Resolution*, with the help of emollient and discutient Cataplasms; which if they do not the Business, we must make 'em stronger with the *Four Meals*, and *Cimolian Earth* boil'd in *Hydromel*, adding a little *Oil of Roses*.

*Sensibly*, by bringing the Milk out at the Nipple; for accomplishing of which, three different Methods

Methods are propos'd: *first* to apply to the Nipple the small Cupping-glass C, whose Orifice must be just big enough to receive it. 'Tis to be laid in boiling Water till it is hot, and then it must be taken out and apply'd to the Breast, the Nipple being comprehended within its Orifice, it sticks fast; having covered it with a warm Linen Cloth, we must leave it to fill with Milk, and then take it off, and apply it as oft as we think proper. *Secondly*, To cause the Woman to be suck'd by a healthful clean Woman, who must spurt out the Milk from time to time, and suck till the Breasts are drain'd. *Thirdly*, To make her suck herself by the help of the Instrument D, call'd a *Sucking-Pipe*. If she finds the Cupping-glass inconvenient, or that the Woman who sucks her puts her to too great Pain, she may suck herself with this glass Instrument, the bigger end of which E, is to be apply'd to, and cover the Nipple, while the Woman holds the other end F in her Mouth, and sucks till her Breast is sufficiently drawn and emptied. Ch. 12.

But if the Milk, notwithstanding all these Expedients, is not evacuated, an Abcess will certainly be form'd: for upon a very small Alteration it is readily turn'd into *Pus*. In this case, we must open the Breast with the Lancet G, as soon as we perceive any Fluctuation of Matter, to prevent its disordering the Part, which is very tender and sensible.

To think that Steel Instruments ought not to be made use of in Distempers of the Breast, is an Opinion worthy of an old Woman only; and if some Women won't suffer us to use 'em, they must have their Will, but 'tis well if they don't pay dear for it, as they often do, when they chuse to wait till the Imposthume breaks of its own accord; for *then* instead of one Aperture

made by the Lancet, it breaks out in five or six places, the Breast is miserably lacerated, and they have time to repent of their Obstinacy.

But when a Woman leaves it to the Surgeon to do what he thinks proper, he must take a Lancet wrapt up in a narrow bit of Linen, so that no more of the Blade can be seen than is necessary to make the Incision, which must be twice as long as *that* in *bleeding*, in order to let out the Matter. In these sorts of Abcesses, we use no Tents; a Plaster H, cut in the shape of a *Maltese Cross*, is sufficient, if you take it off as often as there is any little quantity of new Matter to be discharg'd. For my part, after the Orifice is made, I always use *one* of the *Unguentum Sacrum*, or Divine Ointment, spread on a piece of Leather, with which I cover the whole Breast, and I find it succeeds very well. The Patient may dress herself, by taking off the Plaster three or four times a day, to wipe it; and having warm'd it, may lay it on again. Three or four Plasters renew'd from time to time, soften the Part, and dispose to a perfect Cure.

*The End of the Fourth Book.*

A

# General Treatise

OF

# MIDWIFERY.

## BOOK V.

### *Of Dieting and Ordering a New-born Child.*

HItherto we have only propos'd and directed what is to be done for the Preservation and Comfort of the *Mother* whilst she is with Child, in Labour, and in Childbed; wherefore we must now turn our Thoughts to the *Child*, who by its Crys the moment it comes into the World, earnestly implores our Help, and must inevitably perish in a very short time, if we do not shew Compassion to it, and take care of it in its forlorn and helpless Condition. Having therefore *deliver'd* the Mother, and left her to take some Rest, which she wants very much after her long and great Sufferings, 'tis our Duty, and

ought to be our principal Care, to tend and cherish the new-born Child, and to omit no Circumstance that can be of the least use to preserve or maintain that Life which God has been graciously pleased to bestow upon it. This shall be the Subject of this fifth Book, which consists of fourteen Chapters.

## CHAP. I.

### *How to tie and cut the Navel-String.*

NO sooner is the Child come into the World, but he must be oblig'd to the Surgeon for cutting and tying the Navel-String; otherwise he has a very short time to live, and a few Hours only pass betwixt his first and last Breath.

Some will have the Woman entirely *deliver'd* before the Navel-String is tied; alledging, that if we delay it, it will be more difficult to bring away the After-Burden, because the Womb begins to contract and shut so soon as the Child is born. Others advise us to make the Ligature before we *deliver* the Mother, to prevent the Child's losing too much Blood upon separating the After-Burden from the Womb. Both have their Reasons, and 'tis hard to tell which side one ought to take; only if the Surgeon after the Child is born, perceives that the *Placenta* is loosned, he must fetch it away immediately; but if he finds that it adheres to the Womb, he must tie the Navel-String with all convenient speed. See Chap. V. Book III.

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This Operation was call'd by the *Grecians*, *Embryotemne*, from the Words *Embryon*, which signifies an *Infant*, and *temnein* to *cut*, because it consists in cutting the Navel-String of a new-born Child. And tho 'tis one of the most simple Operations in Chirurgery, yet it ought to be carefully gone about, because the Circumstances of performing it are pretty nice; and when they are not observ'd, we see that several Children are lost. The manner of doing it is this: Take five or six doubles of Thred about a Foot long, tied with a knot at each end to prevent their entangling, and tie the Navel-String with it within two fingers breadth of the Child's Belly, making first a double Knot; then bringing the Thred round, let the Midwife make a *second* on the opposite side, and afterwards a *third* if she pleases, for the greater Security: this done, let her clip the Navel-String with Sciffars a finger's breadth below the Ligature, so that three fingers breadth of it is left hanging at the Child's Belly. She must make use of big Thred, and must not tie the Ligature too strait lest it cut thro the Navel-String; neither must it be too slack, lest the Child which is wrapt up in Swaddling-Cloths, bleed to death before it is discover'd, as hath happen'd to several. Let her therefore carefully observe, after the Operation is perform'd, whether it bleeds or not. Ch. 1.

Dip a Linen Rag that's three fingers broad in Oil, or spread fresh Butter on it, and wrap up the end of the Navel-String in it: then having laid a small Compress on the Child's Belly above the Navel, turn up the Navel-String, and place it upon it, put another small Bolster over it, and swathe it with a Linen-Roller four fingers broad.

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The Ligature is sometimes slacken'd as the Navel-String drys and withers, and a small effusion of Blood ensues. In this case, it must be drawn straiter. Wherefore the Surgeon ought not to cut the Threds too near to the Knots, but rather to leave 'em so long, that *others* may be cast upon 'em, if there's occasion for it.

The Surgeon having done as we have directed him, must leave the rest to *Nature*, who will not fail to separate the Navel-String from the Body, which she does for the most part in seven or eight days. However, we must by no means meddle with it, but give it time to fall off of its own accord, lest if we pull it rudely before the Arteries are entirely clos'd and heal'd up, a Flux of Blood follows.

Some good old Women would have us to urge the Blood contain'd in the Umbilical Veins back into the Child's Body, before we tie the Navel-String. But 'tis very bad Practice; for *that* Blood condens'd by the cold Air being ordinarily coagulated and grumous, is apt to form Obstructions, and to corrupt *there*. We have already taken notice of another silly ridiculous Conceit of *theirs*, which is, That the Knots on the Navel-String shew the number of Children that a Woman is to have; and that the red ones stand for Boys, and the white for Girls. Some of 'em are also very much concern'd to have the Navel-String cut near to the Belly in Girls, but at a very great distance from it in Boys, foolishly imagining that the *Penis* will be long in proportion: a thing it seems they are pretty fond of, and do their best to provide for their Children also.

CHAP.

## CHAP. II.

### *How to wash and cleanse a new-born Babe, and how to wrap it up in Swaddling-Clothes.*

DUring the nine Months that the Child is in the Womb, it gathers a thick and whitish Matter, with which it is cover'd all over when 'tis born, and which mixing with the Blood that is shed in Labour, makes the Child look very disagreeable.

So soon as the Navel-String is tied, the Child is wrapt up in a Linen-Bed, as they call it, warm'd for that purpose; the Nurse must receive the Child, and carry it to the Fire-side, and *there* cleanse it from that Filth which it brings into the World, and wrap it up in Swaddling-Clothes.

Let her take about a Pint of Wine warm'd in a Skellet, and having dissolved some fresh Butter in it, let her wash the Child's Body all over with a Linen Rag, or a fine Spunge dipt in it lukewarm, beginning at the Head, where there is most of it, because of the Hair; and having cleans'd it, let a woollen Cap be instantly put upon it, to prevent the Child's catching cold; and then let her proceed to wash the rest of the Body.

This Excrement is nothing but the Mud of the Waters in which the Infant swims; which adhering to the Skin, is *there* thicken'd by the Heat of the Body: and proceeds not, as some will have it, from the Diet of the Mother, or the

the Seed in both Sexes, which cannot reach the Child's Body, that is wrapt up in its Membranes, as we have already explain'd.

After the Child is thus wash'd and cleans'd from this Filth, a great deal of which lodges in the Groins and Armpits, before we swaddle it, we must look upon several parts of the Body, to see if they have the proper Shape or not, and if it hath brought any natural Defect into the World with it, and if the *Anus* and other Passages are open, as they ought to be. Some Women order the Child's Face and Neck to be rubb'd with the *Oil of Walnuts* drawn without Fire; and tell us, that it will give it a fine Complexion and Skin. I own that I have seen this done to Children, who had afterwards a very beautiful Skin; but am far from affirming that there's any great Virtue in it, much less that it has this certain and constant Effect.

Every Nurse and good Woman knows how to swaddle a new-born Child: all that I shall say on this Head, is, that they ought to lay the Arms and Legs in a strait Line, and that they must not swathe it too strait on the Breast, that it may breathe freely; neither must it be girt by the Stay of its Cap; and the Stay-Band must be so fix'd, that its Head may not incline more to one side than the other.

Nurses seldom fail, so soon as the Child is swaddled, to put a Pea to the lower part of each Cheek, near to the corner of the Mouth, to make two Dimples, which, as they say, remain *there* ever afterwards, because the Impression is easily made when the Flesh is so very tender, and they're look'd upon as Marks of Beauty, especially in Girls. But what's of more advantage to the Nurses, is the Custom of asking a Crown-Piece of the Father to rub the Child's Lips,

Lips, and make 'em, as they tell us, of a lively red colour. It is true, that they touch the Lips with it, but quickly put it into their Pocket, challenging it as a Perquisite of their Office. Ch. 2.

The Child must be laid to sleep so soon as it is dress'd: for after the great Efforts it has made, and the Fatigue of being cleansed and swaddled, it stands greatly in need of Rest. We must not lay it on its Back, but on one Side, that the Spittle may run out at the corner of its Mouth. Midwives and Nurses frequently give it some Spoonfulls of *Oil of Sweet Almonds*, or *Syrup of Maiden-hair*, to facilitate Expectoration; but this serves only to make the Child sick, and vomit. 'Tis better to give it a little *Wine* sweetned with Sugar from time to time, to cut and loosen the Phlegm, to strengthen its Stomach, and enable it to digest the little Food that it takes.

Some would have us to give the Child the Breast the very day it is born: others are of opinion that it ought to be delay'd for some days. If it is lusty and fat, and is not restless, nor crys, we may do *so*; but if it is weak, and seeks for Food, which we may guess at by the motion of its Lips and Tongue, and by its Uneasiness and Crys, 'twould be Cruelty to withhold the Breast from it.

There is collected in the Intestines of a Child, whilst it's in the Womb, an Excrement of the colour of Pitch, and of the consistence of the *Pulp of Cassia*, call'd *Meconium*, which it voids soon after it comes into the World. *Mauriceau* takes this to be a superfluous Blood daily discharg'd by the *Hepatick Duct* into the Intestines, which remains *there* till the Child is born. This Opinion, which wants not its Difficulties, is not so very well receiv'd: Some think, that this Excrement serves to keep the Intestines open, while

while they have no opportunity to perform their Office. But this Opinion is no better founded than the other: and it is more probable that the Glands of the *Mesentery*, appointed by Nature to separate certain Impurities from the Blood, and discharge them into the Intestines, begin to secern the *little* that they meet with from the Blood of the Mother, which the Child receives for its Nourishment, and which was depurated with her before; and that they throw these Impurities into the Child's Intestines, where they thicken and grow hard by the heat of the Parts.

I cannot hinder my self from censuring those, who if the Child voids not the *Meconium* so soon as they would have it, give it Suppositories, or purge it with *Pulp of Cassia.* Are they afraid that the *Meconium* will be wasted in the Intestines, and that it will never be evacuated? Wou'd they but wait a little, the Excrement of the Food which the Child takes, would certainly thrust it out. And tho it should not be voided for a day or two, they have no reason to think that it will do the Child, who has kept it so long already, any harm. In a word, I heartily pity a poor innocent Child, who has the Misfortune to fall into such hands, as plague him with Medicines so very early, when there's no occasion for them.

## CHAP. III.

### *How to cut the* Filament, *or String, under the Tongue in new-born Babes.*

THE String under the Tongue in new-born Children is cut upon a two-fold Account; either when there's one too many, or when the natural *one* is either too big, or comes too far forwards towards the Tip of the Tongue.

Children are frequently born with a little Membrane adhering to the natural Filament under the Tongue, which makes it impossible for 'em to put the Tongue out of their Mouth, or to perform its ordinary Motions. Midwives take upon them sometimes to tear this Membrane with their Nails, which is now and then attended with bad Consequences; for it is so strong, that it can't be done without putting the Child to pretty great Pain, and occasioning a Flux of Humours upon the Part, which effectually prevents its sucking, and endangers its Life. They ought not therefore either to tear it, or undertake to cut it, but leave it to the Surgeon, whose Business it is, and who understands how to do it, without omitting the least material Circumstance of the Operation.

If the supernumerary String is but small, it does no harm; but if 'tis big, and reaches to the Tip of the Tongue, the Child cannot draw the Breast, but can only fumble with it; and tho it does its best, can never embrace the Nipple, or press it against the Palate, and squeeze out

the

the Milk, because 'tis kept down and bridled by this Ligament. The Surgeon therefore must take a little Fork in his left hand, and a Pair of Scissars in his right; and having turn'd the Child to the Light, must lift up the Tongue, and keep it *so* with the Fork, whose two Branches embrace the String, and with the Sciſſars must cut it through. Instead of a Fork, he may make use of his Fingers. The Infant's crying shews the Ligament the better. So soon as this Bridle is cut, some Salt must be laid on the Wound, and the Nurse must pass her Finger underneath the Tongue, not, as some think, to hinder the Parts from reuniting, for the Motion of the Tongue does *that* effectually, but that in case the Filament is not cut near enough to its Root, it must be wore down insensibly, which is done without any trouble either to the Child or Nurse. The Child loses a few Drops of Blood only; for if there's any little Flux of Blood, 'tis plain that the Point of the Sciſſars has enter'd one of the two Blood-Vessels under the Tongue. In which case, the Bleeding must be stopp'd either by astringent Powders, or by clapping the Finger on the Aperture for some time, or by covering it with a small Compress dipp'd in some *Styptick-Water*. 'Tis no difficult matter to stop bleeding *here*: But if we neglect to do it, it may be of very ill consequence. As it happened some Years ago to one of the most noted Surgeons in *Paris*, who, as he was performing the Operation upon a new-born Child, who was to have been Heir to a very plentiful Fortune, having open'd one of the *Ranulares*, left the Child so soon as he observ'd it suck with ease; and the Nurse having laid it in its Cradle after it had suck'd enough, and not making any account of its moving its Lips as if it suck'd on, because a great many Children

dren do *so* in their Sleep, 'twas found afterwards that it had swallow'd down the Blood that flow'd out of the Vein which was open'd, and that the Flux of Blood was promoted and kept up by its sucking till the Vessels were emptied, and the Discovery came to be made by its pale Looks and Weakness a few Hours only before its Death. Upon opening of it, its Stomach was found full of the Blood which it had taken down to its own Destruction. Let Surgeons therefore take warning from this, and not leave Children till they are sure that all is right. Chap. 3.

If the natural *Frænum* is too big, the Surgeon must instantly cut it. We frequently see Children of four or five Years of Age stammer, because they cannot move their Tongues freely, which is absolutely necessary towards our pronouncing articulately. In that Case we must cut it in two or three different Places, that the Tongue may be at liberty to range up and down every where in the Mouth, as it ought to do. If the Child cannot put out its Tongue, we may depend upon it that it is the Ligament that hinders it, and we may very safely cut it, if we take but care not to hurt or prick the *Ranulares*.

## CHAP. IV.

### *Of Contusions and Bruises which a new-born Child receives in the Birth.*

'TIS not to be wonder'd at that a new-born Babe, whose Flesh is extremely tender, who is oblig'd to struggle very hard, who presents in an unnatural Posture, and sticks fast in the Passage, comes into the World with Contusions and Bruises: 'Tis rather to be wondred at, that any *one* should be born without *them*.

Of all the Parts of a Child's Body, the Head is *that* which in Labour suffers most; for this is *it* which opens a Passage for the rest, and therefore presents first, and striking against the internal Orifice of the Womb, dilates it by little and little; but sometimes meets with so great Resistance from it, especially in Women who have not brought forth before, or are pretty well advanc'd in Years, that not being able to open it sufficiently, it puts on an oblong Figure, and a Tumour is sometimes form'd on the Crown of the Head, as big as a Hen's Egg; and if the Head is lock'd any considerable time, it is very much bruis'd.

'Tis very probable that this Tumour is caus'd by the Blood brought to the *Part* by the Arteries, which cannot return by the Veins, because of the too great Compression of the Part, which is so tumefied, that the Bones of the *Cranium* are not easily felt; neither cou'd we know that it is the Head, were it not for the Hair which covers it.

To

To discuss these Tumours, let them be foment- Chap. 4.
ed with *warm Wine*, or *Spirit of Wine*, so soon as the Child is born, dipping afterwards a Compress of several Doubles in the Liquor, and laying it on them. Midwives dip a Compress in *Oil of Roses and Wine* beat together, and apply them to the Part, and renew them often. If the Tumour can't be discuss'd, but tends to Suppuration, it must then be treated as we do Abcesses in other Parts; and therefore must be open'd with a Lancet so soon as we perceive that there's any Fluctuation of Matter.

If the Infant is bruised in any other Part of the Body, or if it has a Leg or Arm tumefied, let Compresses be dipp'd in Wine, in which Aromatick Herbs have been boil'd, such as *Rose-Leaves*, *Camomile-Flowers*, and *Melilot*.

Sometimes Boys have the *Scrotum* very much swell'd, either from Water contain'd in its Membranes, or because it hath been mightily compress'd and bruis'd in time of Labour: But whether it proceeds from the one or the other, let the Part be first fomented with *Aromatick Wine* pretty warm, and afterwards wrapp'd up in Linen Rags dipp'd in it.

Children are sometimes born with their Faces black and blue, their Noses crush'd in pieces, and their Lips puffed up and bloated, as in dead Bodies. This is the Case of *those* who stop long in the Passage with their Head downwards; for the Blood brought to it by the Arteries, which cannot return by the Veins by reason of the great Compression, produces these Effects. Let the Face be fomented with *Spirit of Wine*, or *warm Wine*, and take care that none of it enter the Eyes, for it will make them smart intolerably.

The Surgeon sometimes in turning the Child in time of Labour, has the Misfortune to dislocate or break an Arm, or a Leg: But whether this is owing to his Unskilfulness, or the Badness of the Labour, the Bone must be set, and kept in its place with proper Bandages, Boulsters, *&c.* according to Art, till it is consolidated, and a perfect Cure is made.

## CHAP. V.

### *Of the Sutures of the Head being too open.*

THE softest Part of the Head, which dries and closes up last, is call'd the *Mould*. The *Sagittal Suture*, which in Children reaches from the Crown of the Head to the Root of the Nose, and the *Coronal*, which goes from one side of the Head to the other, divide the *Mould* into four Parts in Children; for with time it ossifies as other Bones of the *Cranium* do, and in adult Persons is not to be perceiv'd. There are Children who have *it* open till they are three Years old, if not longer; which is taken to be a great Sign of the Weakness of their natural Heat; for it is usually quite clos'd up at the end of two Years, or sooner or later, as Children are more or less strong or moist.

No Applications can forward this Ossification, Nature only can do it; and therefore we must leave it entirely to *her*. All we have to do, is to lay a Linen-Cloth of three or four Doubles on the *Part*, to keep it warm. Some prefer a piece of Scarlet Cloth, alledging that it is more strengthening: But 'tis no matter what one uses, provided

vided it preserves the Part from external Injuries, but especially from Cold. Chap. 4.

Children born before the full time, and such as are of a weak Constitution, have the *Mould* and *Sutures* of the Head too open, by reason of the great Distance of the Bones from one another. We must not attempt to bring these Bones close together, by binding the Head strait; for this wou'd so compress the Brain, that it cou'd not perform its Functions, which in time would cease. There is no more required but that we keep these Bones fast by a little soft contentive Bandage. Nature will close up these *Sutures* by degrees, and ossify the Part, and give the Head the proper Shape.

In Children who are born with an *Hydrocephalus*, the Sutures of the Head are always at a great distance from one another; and 'tis a great time before they close up, because the Waters oppose it. The Word *Hydrocephalus* comes from *Hydor Water*, and *Cephale* the *Head*, of which Part 'tis a Dropsy. There be two sorts of *Hydrocephalus: One external*, when the Waters are contain'd between the Skin and the Skull; the *other internal*, when they are lodg'd within the *Cranium*. We treat not of this last, because 'tis incurable, but of the first only.

This Distemper, which is peculiar to Children, proceeds either from an internal Cause, as all other Dropsies do, that is to say, from a Lymph separated in the Glands, and thrown by the Lymphatick Vessels in great Quantity upon some particular Part; or from an external one, as when the Head has been very much compress'd in difficult Labour, and when the Midwife after Delivery takes it upon her to shew her mighty Skill, by giving the proper Figure and Roundness to it: which she ought by no means to do, because there's no occasion for it, seeing the Brain recovers its natural Figure,

and its glandular Substance is so soft and loose, that the least Violence is sufficient to alter its Cohesions and Texture, and do the greatest Mischief.

In this sort of *Hydrocephalus*, the Antients applied two potential Cauteries; one in the beginning of the *Sagittal Suture*, the other on the Point of the *Lambdoidal* one; by which, when the Escars fell off, they let out the Waters; and when they judg'd there were Waters under the *Pericranium*, they open'd it in these two Places, that they might serve as Out-lets. They us'd Cephalicks externally, and embrocated the Head with *Oils of Camomile, Melilot, and Aniseed*, and by these means pretended to cure this Disease.

I prefer Scarifications in the lowest and most dependent Parts of the Head, because the Waters may run off, by little and little, better by them than by Issues made too near the superior Parts of the Head. 'Tis now twelve Years since I was called to a Child born with an *Hydrocephalus*: Upon the posterior and inferior part of whose Head I made two small Incisions, by which the Water run out, and distill'd afterwards Drop by Drop. I chose that Place the rather, because when the Infant was in Bed the Waters cou'd run out as well as at any other time. I caus'd the Nurse to cover the Child's Head with several Doubles of Linen-Cloth dipp'd in *warm Wine*, which were often renew'd; and it succeeded so well, that the Patient has enjoy'd good Health ever since.

## CHAP. VI.

### *Of the Fundament's being clos'd in a new-born Babe.*

SOME Authors tell us that the Fundament may be clos'd two ways: Either naturally, when the Child comes into the World with it imperforated; or accidentally, when through negligence the Sides of this Part being ulcerated, are allow'd to coalesce and cicatrize. I have met with the *first* several times, but never with the *second*; neither do I think it possible, because the gross and big Excrements which are voided every day open the Passage, and give not time to the Sides of the Ulcer to grow together. Wherefore looking upon this sort of closing as imaginary, I shall only speak of *that* which is real and natural.

This Defect, for the most part, is not discover'd the first Day, but the second or third only, when the Child fouls not it self; and then if the Surgeon finds not a Remedy in a little time, the Infant certainly dies. The Excrements which are retain'd pressing against the Membrane, shews us where the Aperture ought to be made. If this Membrane is thin, 'tis easily pierced; but if 'tis thick and tough, as I once saw it in a Child, 'tis no very easy Task to perform the Operation. The Surgeon must plunge his Lancet or Bistory till the *Meconium* begins to appear; then he must make a second Incision a-cross the

other, in that place which he takes to be the middle of the Fundament, which will make the *Anus* of a rounder Figure than if a longitudinal Incision only had been made. Having given the Infant time to do its Needs, a Tent arm'd with the Yolk of an Egg, and a little Oil beat up together, must be put into the Fundament, to hinder it from closing again. This Tent must be made so soft and small, that it can put the Child to no pain, and may easily give way, and be press'd out by the first Excrements which are voided. A Pledgit, Plaster, and Compress, must be laid on, and the dressing kept on by the Bandage called the *Single T.*

There's no occasion for making use of a *Cannula*, or Leaden Pipe, as in opening other Parts imperforated; for there's no danger of their reuniting. If the Surgeon perceives that he has not made the Hole big enough, or that it is not quite so round as it ought to be, he must return to the Operation next Day, and finish it. He must with the Point of the Bistory disengage each Fold of the Circumference of the *Anus*, and cut the Membrane which cover'd it in form of a Rose; that the *Anus* ever after may dilate as there's occasion, and shut exactly each time that the Excrements are voided.

We need not prepare Dressing for this Operation; for it may be got ready during the time which we allow the Child to void the *Meconium* and Excrements in.

If the Urinary Duct in Boys, as well as Girls, is closed up by a small Membrane, so that they can't make Water, an Incision must be instantly made upon it with the Point of a Lancet. We must not follow the Example of those who introduce a Leaden *Cannula*, to keep the Passage open

open till the Wound is cicatriz'd; for the Water which is made from time to time will hinder it from closing again. Chap. 7.

## CHAP. VII.

### *Of Gripes or Pains in the Belly in young Children.*

ONE of the first Diseases with which new-born Babes are afflicted, is Pain in the Belly, or Gripes, so that they are no less subject to Pain than their Mothers are, the moment they see Light; which makes good the saying, That *Man is born to suffer.*

Some assign the Mother's eating of odd and improper Things while she was with Child, as the Cause of these Gripes; others attribute them to the Infant's sudden Change of Diet, alledging, That whereas it fed upon pure Blood while it was in the Womb, Food to which its Stomach is not accustomed, and which it has much ado to digest, is *now* given to it. Others maintain, that tho the Mother's Blood be charg'd with few Impurities, yet the Infant derives some of 'em from her; which being separated after its Birth from the Blood by the Glands of the *Mesentery*, and pour'd into the Intestines, in order to be thrown out of the Body, so prick and irritate *them*, that the Child gives Signs of great Pain, and scarce gives over crying till they are evacuated.

Others

Others again lay these Gripes upon the Infant's Change of *Place*, alledging, That when it was in the Womb, the several Parts of its Body were kept all alike warm, and that it felt no Cold; but that upon its Birth it is expos'd to the Injuries of Air, and the Changes of Weather; and that if it catches but a very little Cold, it is apt to be seiz'd with Cholick Pains and Gripes.

Some alledge that if the Nurse has not Milk enough, or if her Breasts are not easily drawn, the Child sucks in more Wind than Milk; and that this Wind moving up and down in the Intestines, distends them, and causes these great Pains and Gripes. Others affirm that they proceed from the Nurse's Milk, which is often too hot and sharp, and gives the Child Pains in the Stomach and Guts, which rack it continually, till the Nurse is chang'd, and Milk that suits it better is found; and then we see that when it has suck'd as much as it can at a time, it sleeps very sound, and is every way easy.

I'm not of opinion that these Gripes proceed from the *Meconium*, because whereas it is usually voided in the first three Days, the Pains often continue whole Months. Besides, if any part of this Excrement were retain'd and harden'd in the Intestines, as some wou'd have us believe it is, the Infant could not go to stool, as it does very frequently, after a Fit of the Gripes.

'Tis not to be thought that Pains of the Belly in new-born Babes are occasion'd by Worms, which are ingender'd out of our Food, seeing Infants are often grievously afflicted with Gripes when they have scarce taken *any*: Besides, were there Worms in the case, they would probably void some of them, and then the Method of Cure would be obvious.

We

We must endeavour to find out the true Cause of a Child's Gripes, before we order any thing against them; because Medicines which are proper against them in some, are not so in others.

Tho Children cannot tell and describe to us their Ailments as grown Persons do, and therefore 'tis more difficult to find out Remedies against them; yet we must by no means deny 'em our Pity and Assistance, but must do what's in our power to ease their Pains, and free them from 'em; which is chiefly to be done by external Applications, anointing the Belly all over with *Oil of Walnuts*, *Camomile*, *Rue*, *Violets*, and *Sweet Almonds*, mix'd together, in which also a Cloth may be dipp'd, and laid upon it pretty warm. Let nothing be given inwardly but a small spoonful or two of some proper Syrup; a little Suppository may be put up the Fundament, or a small Anodyne Glyster may be given: and if the Pain continues, a Pan-Cake made of *two Eggs*, *fry'd in Oil of Walnuts*, may be apply'd to the Belly, and renew'd from time to time. But above all, let the Child be kept very warm; for Warmth is the best Remedy in this Case, and very often cures the Distemper; which, by the by, some Children happily escape.

CHAP.

## CHAP. VIII.

### *When the Navel-String comes out too far.*

A Protrusion and Swelling of the Navel is call'd an *Exomphalos*, from *ex* or *extra*, *without*, and *Omphalos* the *Navel*. We do not treat *here* of an *Exomphalos* in general, but of those small ones only which happen to new-born Children, which are by no means to be neglected, lest they grow big and prove very troublesome, as they frequently do, when they are not treated as they ought to be.

Authors tell us, that this Humour is formed either by a Dilatation or Rupture of the Navel-String. For my part, I take it to proceed from a Rupture of the Part only; for there can be no such thing as the Dilatation which the Antients and some Moderns talk of, since the Navel which is nothing but a Knot in the Part, after tying the Navel-String, can no more stretch than the Cicatrice or Scar of any Wound can do. And to be convinc'd of the truth of what I advance, we need only observe, that the Navel is formed by the reuniting of the Umbilical Vessels, which after the Birth shrink, and growing dry, degenerate into Ligaments, the extremities of which being join'd to the Skin and *Peritonæum* in this place, form a little Body like to a Knot, which is not capable of the smallest Extension. Whenever this Misfortune happens, the Surgeon or Midwife is sure to be blam'd for not tying the Navel-String as it ought to be: but whether the Ligature is made near

to

to the Belly, or at some distance from it, the Navel-String falls off in the same place; Nature does the Work, and neither Surgeon nor Midwife has any part in it. Ch. 9.

The true cause of this Rupture is either the Infant's crying, occasion'd by Gripes, or some violent Cough, which seizes it before the Knot of the Navel is sufficiently consolidated and harden'd.

Tho we use our utmost Skill, yet this Tumour sometimes can't be cur'd: but if it is curable, 'tis when it is recent, by laying upon it the *Emplastrum ad Herniam*, and a thick Compress, and keeping them fast on with a circular Bandage. Besides, the Child must be still, and not cry, otherwise the Parts will not re-unite.

The Operation needs not be perform'd for an *Exomphalos* in new-born Children, neither ought it to be attempted, for it is most dangerous, and seldom or never succeeds. We have nothing therefore to trust to, but the Plaster, Compress, and Bandage.

## CHAP. IX.

### *Of Redness of the Groin and Buttocks of an Infant.*

INfants are very subject to Redness and Smartings of the Groins, Buttocks, and Thighs, thro the Sloth of Nurses, who do not shift them so oft as there's occasion for it, or because they wrap them up in Linen that the *Lye* is not well wash'd out of. These Symptoms are sometimes also

also owing to the sharpness of the Child's Excrements and Urine, which fret and corrode its tender and delicate Skin, and make such Impressions upon it, as give the Infant pain, and make it very restless and peevish.

Next to Milk, which is the Infant's Food, nothing does it so much good, or makes it so easy and healthful, as Cleanliness. 'Tis no wonder that Children who are drench'd in their own Ordure, thro the carelessness and nastiness of Nurses, are troubled with Redness and other Complaints of that nature. 'Tis the Nurse's Interest to keep the Child very clean; for if its Skin is inflam'd and fretted, the Relations will be apt to lay the blame on her Milk, and turn her off: and if she observes that the sharpness of its Urine causes the Redness, she must endeavour to correct it, by abstaining from all such things as heat the Blood, by using a cooling Diet, and by taking Broths made of Veal and cooling Herbs for some time. Let the Parts affected be bath'd with *Plantane-Water*, or weak *Lime-Water*; but if this last puts the Child to pain, let the Parts be fomented in lukewarm *Milk* only, and afterwards let *Unguentum Album* or *Diapompholigos* spread on Linen be laid on them. A great many Nurses strew Mill-Dust upon the excoriated Groins of Children, which does very well. Lastly, when the Nurse opens the Child, let her be careful to wrap up the Thighs and other Parts inflam'd in soft Linen Cloths, to prevent the increase of Pain, and their being more gall'd, by rubbing on one another.

CHAP.

# CHAP. X.

## *Of Pains in breeding the Teeth.*

THE Teeth are little, hard, white, smooth Bones, form'd and fix'd in the Sockets or Cavities of the Jaws by the Articulation called *Gomphosis*. Their use is to chew and grind the Aliments small, and to enable us to pronounce Words distinctly.

Some Children have brought Teeth into the World with them, others have bred 'em in the first Months; but their ordinary term of cutting begins about the 7th or 8th, tho some have none for a Year or two. The *Incisivi*, or four foremost of the upper Jaw cut first; for being more thin and sharp, they pierce the Gums sooner: the *Incisivi* of the lower Jaw come next, then the *Canini*, and last of all the *Molares*.

As the breeding of Teeth puts Children to very great Pain, and often causes Inflammations, Fluxions, and other troublesome Symptoms, Nature thrusts them out one after another, or at most two at a time only; for did they come out all at once, Children could not bear up under the Convulsions which attend them, but would fall a Sacrifice, as we often see those do who have but three or four cut at a time.

When Children have twenty Teeth, tho the rest are not bred for some Years, we commonly say they have all their Teeth: by which no more is meant than that they have as many as they ought; for twenty is the ordinary number when a Child is twenty-five Months old, at which

Book V. which time it ought to be wean'd, and no sooner, because the Mother's Milk not only enables them to breed their Teeth better than any other Diet, but serves likewise to keep the Gums more moist and supple, especially when they cut their last Teeth, whose *Laminæ* and Bases being broader and flatter, pierce more difficultly than the first.

When the Teeth are ready to cut, a Silver Coral furnish'd with small Bells, is ordinarily made use of, to divert the Child from the Pain it then feels, and to cool its Gums, which are *then* inflamed, and to facilitate the cutting of the Teeth.

The Signs of Teething are these: the Infant's Jaws and Gums are somewhat red and swell'd, it feels great Pain, attended with an itching, which makes it put its Fingers into its Mouth, and rub 'em frequently, which brings down a great deal of Humour. When it sucks, its Mouth feels hotter, it has a greater thirst than ordinary; it cries almost incessantly, and can't sleep, and the small Points of the Teeth appear thro the Gums, which are thin and white, where they are about to pierce.

Let the Nurse have a good Diet, that her Milk may be good, and that she may have much of it; for the Child, who is *then* very thirsty, sucks at a greater rate than ordinary, and bids fair to drain her in a very short time, if she has not Milk in great abundance. She must neither eat Meats high-season'd or salted, nor Ragoos. She must take Broths very often, to temper and cool her Milk, in order to allay and check that Fever which Children are very subject to in this case.

She must rub the Child's Gums with her Finger from time to time, to soften and thin them, that

that they may cut the sooner. The Child is so far from being shy of this Friction, that it seems rather to desire it, because it dulls and eases the Pain. Some would have us make an Incision with the Point of a Bistory, on that part of the Gums where the Tooth offers to cut, in case a Child has suffer'd much by it, and it is not near. But I think this no way advisable; for I know no other use it is of, but to gratify the Parents; and 'tis apt to bring a Flux of Humours on the Parts already inflamed. It is better to let the Nurse do it with her Nail, and when the Tooth appears, to receive the usual Present which Parents make upon the News of the first Tooth's being cut. 

## CHAP. XI.

### *Of Ulcers, or a Thrush in the Mouth of an Infant.*

INfants are often very much afflicted with little whitish Ulcers of the Mouth, called *Cankers*, caused by the Heat and Acrimony of the Nurse's Milk, which excoriates and ulcerates the delicate internal Membrane of the Child's Mouth, and makes little Escars in it, as if it had been burnt in so many places. The Milk of Nurses who are lascivious, given to drinking, and old, commonly produces them. They are also the effect of the Child's weak and imperfect Digestion; for when Milk, tho ever so good, makes too long a stay in the Stomach, it acquires an Acrimony, whence Vapours arise; and adhering to the inside of the Mouth, *there* corrode the Membrane,

brane, and produce these *Aphthæ* or Ulcers, which are either simple and benign, and easily cur'd, or malignant and stubborn, or of very difficult cure.

The simple ones are caused either by the too great Heat of the Nurse's Milk, or of the Child's Blood and Humours by reason of some small Fit of a Fever, and are superficial, and quickly disappear. The other either come after a malignant Fever, or are scorbutick, putrid, corrosive, and spread themselves not only over the Membrane which covers the inside of the Mouth and Tongue, but the internal Parts of the Throat also, *where* they make deep Escars.

To cure those of the first sort, we must order the Nurse a cooling Diet, and Bleeding and Purging if she's plethorick, and must strictly enjoin her Temperance. The Child's Mouth must be washed with *Barley* or *Plantane-Water*, *Syrup of dry'd Roses*, or *Honey of Roses*, adding a little *Verjuice* to make the Mixture the more detersive and cooling. This may be done by fastning a soft Linen Rag to the end of a little Stick, and dipping it in the above-mention'd Mixture, and rubbing the Ulcers gently with it; for if we do it rudely, it will increase the Pain, and cause an Inflammation, and give us more trouble. The *Juice of Citron* is very proper in this case: but the best Remedy that I know of, is to touch these Ulcers with a bit of Vitriol, which makes a small Escar, takes off the little Foulness and white part of the Ulcer, and infallibly cures it.

If the Ulcers participate of any Malignity, let Escaroticks and such other topical Remedies be apply'd as have a prompt Effect. For this purpose, mix some Drops of the *Spirit of Vitriol with Honey of Roses*, and dip a Linen Rag fastned to the

end

end of a bit of Stick, in it, and rub the Ulcers pretty hard with it, that it may have the greater effect; then wash the Child's Mouth with a *Decoction of Barley* and *Agrimony*, in which a little of the *Honey of Roses* is dissolv'd; and proceed after this manner till you find that the Ulcers spread no farther. This is the Method that I always took, and it never once fail'd me. Ch. 12.

## CHAP. XII.

### *Of Scabs upon the Head and Face of young Children.*

WE intend to treat here of such Scabs only as are not malignant, but are the pure effect of a redundancy of Humours, which being over-heated, readily ascend to the Head and Face, *where* they form watry Pimples, in which these Humours, in time, are turn'd into purulent Matter; which afterwards eats thro and ulcerates the Parts, and drying round about the places where it ouzes out, makes those Crusts there, which we call Scabs; with which some Childrens Heads and Faces are every where so cover'd, that they seem to have a Cap and a Mask of one piece, and no part of the Face is to be seen but the Eyes and Lips only. Some think that these Scabs, as well as the Meazles and Small-Pox, proceed from some Superfluities and Remainder of the Menstrual Blood, which the Child endeavours to expel after 'tis born, and which can't be well rectify'd, but is thrown out as a Recrement after this manner. Others attribute it to a bad Digestion, or bad Milk,

Book V. whence corrupt and peccant Humours proceed in abundance, and cause these Scabs, which break out in the Head and Face, because those Parts are very moist, especially in Children. Others again, fancy that the Child was got when the Mother had her *Terms*, or when her Childbed-Cleansings were not quite over. This the good Women take to be the true Cause. If these Scabs are superficial, moist, and of a yellow Colour, if the Skin underneath is of a lively red, and if the Ulcers are not deep, the Surgeon may be assur'd that they are not malignant.

*Mauriceau*, in conjunction with other Authors, is of opinion that the Course of these Humours ought by no means to be stopt, because this Evacuation is profitable, and prevents a great many other Distempers to which Children are very subject. Thus we see that those who have this kind Benefit of Nature, are ordinarily more healthful than others. The most that we have to do in this case, is, to endeavour, as far as we can, to prevent the Generation and Increase of bad Humours in a Child. In order to which, we must provide a healthful Nurse for it, whose Milk is perfectly good, and very cool.

But we can by no means agree with *Mauriceau* in keeping the Child's Belly soluble, that the Humours may not flow in great abundance to the Head; for should we by purging turn the Humours another way than Nature takes to expel 'em by, they might probably be thrown on same other Part, and the Remedy might prove worse than the Disease, and the Child narrowly escape with its Life. Let us therefore, as in the Small-Pox, leave Nature to do her own Work, after her own manner, and rather favour than thwart her, and only purge the Child in the last place, to carry off any small remainder of Humors there

there may possibly be after *she* hath acted the principal part. Ch. 13.

That the Matter lodg'd under the Scabs may have a vent, and not be pent up to eat thro the Skin, and make deep Ulcers, we must endeavour to make 'em fall off, by rubbing them with *Cream* or fresh Butter, laying *Beet*-Leaves upon 'em, and changing them twice or thrice a day, the better to discharge the Matter, and prevent the bad Smell. These things ought to be continued till the Child be perfectly cured; for the peccant and superfluous Humours only will be evacuated, and the Parts will dry and heal of their own accord with time.

The Child's Hands must be pinn'd down all the while, lest by scratching and pulling off the Scabs when they itch, it makes its Face all over bloody, and by irritating the Parts, cause an Inflammation, and consequently a new Flux of Humours; and by often tearing off the Skin, leave Marks behind, and disfigure its Face ever after.

## CHAP. XIII.

### *How to prevent Childrens growing Squint-Ey'd, Crooked, or Hunch-Backed.*

HAving cleansed the new-born Babe, and view'd it, if we observe any wrong Conformation of Parts, we must use our utmost Care and Skill to remedy it while the Parts are yet soft and tender, and susceptible of any figure that we think fit to give them.

One of the greatest Defects in Children is their looking a-skew; some do it naturally, or bring it into the World with them; in others 'tis accidental, and is owing to their being laid in the Cradle with the Light not directly against them: for as they naturally turn their Eyes towards it, they get a Habit of Squinting, which rarely leaves them afterwards.

But whether this Defect be natural or acquir'd, we must try to put a stop to it, by Spectacles, which are concave on the side next the Eye, and have a little Hole in the middle to which a Glass is fitted, thro which the Child must be obliged to look Day and Night for some Years, so that it cannot turn its Eyes aside, but must look upon Objects placed right against them, and insensibly quit the ill Habit of looking a-squint.

Another great Defect in Children, is Crookedness. The Back-Bone is composed of 30 Bones, joined to one another by Cartilages *only*, which consequently are apt to bend, and make it no easy Task to keep Childrens Bodies so strait as they ought to be. I shall not enquire into the various Kinds and Causes of *Gibbosity*, or Crookedness. I have treated of those which happen after Birth, in my Course of Chirurgical Operations, to which I refer the Reader. I shall only observe *here*, that while the Child is in the Womb, its Back-Bone is pretty much bent before it turns; and that when it comes into the World, it inclines to be Hunch-Backed; and that we ought therefore to take care to swaddle its Body in a strait Line, and lay it always on its Back, with its Head somewhat low.

If a Child is born crooked, the Surgeon must not promise to make it perfectly strait, but to employ all his Care and Skill, and at least to prevent its growing remarkably deformed. 'Tis the

the Business of Mantua-Makers, Taylors, and Whale-Bone and Steel Stay-Makers only, to make magnificent Promises to the Relations, to get an extravagant Price; but a Surgeon who has any Reputation to lose, must not do so. Ch. 13.

If the Back-Bone turns outwards, the Child must be laid on its Back on a hard Quilt without a Bolster, that its Head and Spine may be on a level; but if 'tis turned to either side, the Surgeon must use Compresses and proper Bandages, and whatever other Deformity the Child has, must give Proofs of his Ingenuity, by contriving such Machines as may reduce the Part to a better Figure, or prevent the increase of the Deformity; taking particular care never to straiten the Breast, lest a Difficulty of Breathing, and other dangerous Symptoms ensue upon it.

We have already told how the Child's Arms and Legs ought to be placed; and shall only add, that the Nurse must swathe them sometimes one way, and sometimes another, lest if she roll them always one way, they bend and incline to one side.

One material Circumstance, which is very little attended to, is the Custom that most Nurses have of carrying the Child always in one Arm, which is apt to turn the Knees to one side, and make its Legs crooked. Let them therefore carry it one day in one Arm, and another in the other, that it may get no wrong set this way.

## CHAP. XIV.

### *How a new-born Babe ought to be dieted and ordered.*

WE have already observ'd, that by the kind and gracious Appointment of *Nature*, Milk for the Nourishment of the Child flows into a Woman's Breasts so soon as she is delivered; and have regretted it very much, that Women so often decline giving suck to their own Children. We have told how soon the Breast ought to be given to the new-born Babe, and what it ought to have in the mean while, if 'tis troubled with Flegm.

Milk which by its long stay in the Breasts turns sour, in the last Months of Pregnancy, mixing with the new Milk that flows into the Breasts after a Woman is delivered, makes very bad Milk for any other Child but her own; whom 'tis observed to suit exactly, and serve as a Purge to, making it void the *Meconium*, and whatever else was discharged into the Intestines while it remain'd in the Womb. Women are so sensible of the Prejudice that this Milk does to other Children, that they will by no means suffer their Children to suck a Woman's Breast who is newly delivered, and whose Child is dead: and therefore if she designs to be a wet Nurse, she is frequently obliged either to make use of a Sucking-Pipe herself, or else to get a Puppy to suck her for some days.

Beasts

Beasts do shew us that the Mother's Milk alone is sufficient to nourish an Infant, for the first three or four Months at least, since they suckle their young ones, tho they have several of 'em at a time. Some young Children are so peevish and greedy, that they would be constantly at the Breast; such require a greater quantity of Milk than others who are quiet, and fall presently asleep after they have suck'd a while: therefore we cannot determine the quantity of Milk that a Child requires, neither can we tell how oft he ought to suck in one day. If it can be order'd so, that he suckles but once in two hours in the day-time, and once or twice in the night, I'm apt to think that it is sufficient: but 'tis the general fault of tender Mothers, that they give Infants the Breast as oft as they cry, and so overcharge their Stomachs, that not being able to digest the Milk, they often throw it up half curdled. Ch. 14.

There's scarce a Woman who knows not how to make Pap, but few or none take care to have the Flower, of which it is made, dry'd enough, which is a material Circumstance; for if this is not done, it is heavy and viscous, and of difficult Digestion: it must likewise be made of new Milk, and not too thick, lest it overcharge the Stomach. We must give a little of it to the Child once a day only for some time, till its Stomach is accustom'd to it; and after it hath taken it, the Mother or Nurse may give it the Breast, that the Milk may dilute it in the Stomach, and make it digest it the more easily.

'Tis not long ago that Persons of Quality would not suffer their Children to taste Pap, and changed Nurse after Nurse, till they met with one who had as much Milk as was sufficient to nourish the Child, without giving it any thing else. But they have quitted that Opinion, having found it

it necessary to satisfy Childrens Hunger now and then with some Pap, and to accustom their Stomachs to it, as more solid Food than Milk.

Those Children, generally speaking, who sleep most, are the most healthy: and therefore we must suffer them to sleep as much as they please. But since they can't sleep always, we will do well to order it so, that they be kept awake some part of the day, that they may sleep the better in the night; for if they get a custom of waking in the night, which is a very bad one, it won't be easy to put them from it. There's nothing more ordinary than to rock Children to make them sleep; but the less the better: and if it must needs be, let it be done very gently, lest we make the Milk float in their Stomachs, and provoke them to vomit.

So many Children have been unfortunately overlaid by Mothers and Nurses, when they have either been fatigued or very sleepy, that I dare not advise them to lay them in the same Bed with themselves, but in a Cradle by the Bed-side, that they may the more conveniently take 'em up and lay 'em down, as oft as they want the Breast.

The Nurse must take care that she be fully awake before she takes the Child out of the Cradle, and she must sit up when she offers it the Breast; for if she suckles it lying, she will be apt to fall asleep again, and there's danger of her rolling upon it, and suffocating it: she will therefore do better to let the Child cry a while, than to take take it up before she's perfectly awake.

The Child's *Bed* ought to be of Linen that is well wash'd and dry'd. The Infant ought to be open'd and have its Bed changed twice or thrice a day before the Fire, and oftner if there's occasion for it. Let its Head be well covered, especially the *Mould*, where there's yet no Bone, that

it

it may not catch Cold: and for the same reason, Ch. 14.
if the Parson has a custom of throwing any considerable quantity of Water upon Children when he baptizes them, let it be warm'd a little, in Winter especially, if the Season is rigorous, as was always done for the Sons and Daughters of *France*.

Tho crying is of use to Children, and is instead of Exercise to 'em, and opens their Breast, and gives force and vigour to the Muscles both of Legs and Arms; yet Nurses must not let them cry too much, lest an *Exomphalus* or other Rupture ensue: they must therefore do all that they can to quiet them, by giving them the Breast, carrying them up and down, and by opening, cleaning, and shifting them often.

In this Fifth Book I have treated only of such Indispositions and Diseases of new-born Babes as require the Care and skilful Hand of the Surgeon: as for the Diseases of their Infancy, which are not few, we leave them entirely to the Physician, whose Province it is to provide Remedies against them.

*The End of the Fifth Book.*

A

# General Treatiſe

OF

# MIDWIFERY.

## BOOK VI.

### *Of the Choice of a Man-Midwife, and of Nurſes for both Mother and Child.*



HO this ſixth and laſt Book treats neither of Diſeaſes nor Chirurgical Operations, yet it is no leſs uſeful than the five preceding; for it directs a Woman in the Choice of the Perſon who is to *lay* her, and in *that* of a Nurſe for herſelf when ſhe lies in, and for the Child who muſt be ſuckled.

This Treatiſe concludes with an Advice to Mothers, to give ſuck to their own Children: and tho it is not to be expected that many will follow it, becauſe they love their Eaſe too much,

 and

and their Children too little, yet we think our- Ch. 1.
selves obliged in Conscience to set before them such Reasons for their submitting to the trouble of it, as we hope will have sufficient weight with some few at least, and that therefore we shall not lose all our labour.

## CHAP. I.

### *What is requir'd in a Surgeon who practises Midwifery.*

SUrgeons ought to be well-bred Men, and skilful and able in their Profession; but especially those who practise Midwifery. Clowniſhness is somewhat pardonable in an *Army*, *Town*, or *Hospital-Surgeon*; but 'tis intolerable in one who has to do with Ladies, who value themselves upon being more nice than Men, and who are apt to be affronted, if he commits the smallest Blunder, or drops but one unguarded Expression.

A Man-Midwife ought to be well shaped and agreeable at least, that a Woman may put herself into his hands without any degree of Aversion or Prejudice: he must be neither too old nor too young; he must be a Man of Strength and Vigour, that he may do his Business cleverly in difficult and unnatural Labours, which are sometimes no less troublesome to him than they are painful to the Woman: he ought to have a Hand that is long and small, that he may the more easily introduce it into the Womb when the Child is to be turn'd. A large and a short Hand is reckon'd a very material Defect in a Man of that Profession. He ought carefully to study Anatomy, that he

he may know the Structure of the *Parts*, before he enters upon Practice. And since Midwifery is not taught in publick Schools, as all other Chirurgical Operations are; and seeing Womens Modesty will not permit them to suffer a Surgeon's Apprentice to attend him when he *lays* them, as they do in most Cases; the *Hotel-Dieu* of *Paris*, where all Women that come are taken in, is the best if not the only place where he can learn it, and make himself Master of it in a short time. For the Theory of it, he must read *Guillemeau*, *Mauriceau*, and some other Authors; and when he begins to practise, he must in all extraordinary and difficult Cases take the Opinion of those who are experienc'd in the *Art*, who will not fail to communicate such things to him, as he could not well come at otherwise.

He must take care that he neither look sad nor merry, but serious and easy, when he enters the Room where his Patient is, lest he either discourage or offend her, he must patiently hear her Complaints, and give her hopes of a happy Delivery, whatever his fears are: he must not seem weary tho the Labour is slow, but forget every body else, and attend her closely to the last: he must not let her know that any other Woman wants him, lest if any thing happens amiss, she should conclude that he hurry'd on her Labour, and made too great haste to be gone. He must not be covetous or mercenary, but must be as zealous to serve a Woman who can afford him a small Reward only, as others who are both able and willing to give him a great one: and he must never leave a Woman in her Distress, to go to another who can pay him better; for that is both unchristian and barbarous.

We have observ'd in another place, that he must by no means abandon a Woman, tho she's

in

in such danger, that he has no Prospect or Hopes of saving her Life; for tho his Reputation may unjustly suffer by it, he must stay and do his Duty. He must make no Remarks upon what passes in time of Labour; and in a word, he must shew himself a perfect honest Man, who squares all his Actions by the Word of God. He must therefore be virtuous, of a sweet Temper, affable, full of Compassion, and always contented with any handsome or moderate Fee that is given him. 

## CHAP. II.

### *What is required in a Midwife.*

Midwives ought not only to have all the good Qualities required in Men-Midwives, but must also leave off several Vices proper to their Sex and Profession. They are commonly prating Gossips, and fancy that they shall be thought more skilful and able in their way if they tell a thousand wonderful Stories, and talk of a great many extraordinary Cases as true; which, however, are often no better than old Women's Fables, and for which they have no more to say, but that they were told so by such or such a one.

Since Midwives know little or nothing of the Theory of their Art, 'tis but fit they should have some Experience before we trust to 'em; which they can't well be suppos'd to have before they are thirty Years of Age at least, except they have been bred up to the Business by their Mothers,

thers, and have begun to practise very early, or have been Nurses to Women in Child-bed for some considerable time.

A Midwife ought to be a married Woman. It is very indecent for one who is suppos'd not to know the *Way of a Man with a Maid*, to undertake to do the Office of a Midwife; neither will many be inclin'd to put themselves into her hands, as it happen'd to one at *St. Germains*, who laid Women only in the absence of her Mother.

A Midwife ought to be a Woman of strict Virtue, and extremely tender of her own Character: Her Person ought to be agreeable, her Words few; and she must by no means allow herself to tell wanton Stories, to use Puns, or smutty *double Entendres*, lest she offend against the Modesty of Ladies, and others, to whom she is call'd.

She must not be self-conceited, but ought rather to distrust her own Judgment and Skill, and call for Assistance when there's the least Danger. This will be no Disparagement to her, for the ablest Surgeons do it every day; and the World, instead of blaming her, must needs commend her for being just to the Woman who is in danger.

She must never give forcing Medicines either to Maids or married Women, who have not their *Terms*, till she knows the true Cause of their being obstructed, and is sure that they are not with Child, lest she cause an Abortion, or kill the Child in the Mother's Belly. 'Tis not many Years since a Midwife was prevail'd upon, for a Piece of Money, to give a young Lady such Medicines to make her miscarry, as unfortunately kill'd both her and the Child; for which the Midwife was put into the hands of Justice,

tice, was condemn'd to die, and publickly exe- Chap. 2.
cuted.

If a Midwife is requir'd by the Judges to declare whether a Criminal is with Child, or not, having made the strictest Enquiry and Search that she's capable of, let her rather give the Prognostick doubtfully, than hazard the being mistaken: As it happen'd to the Midwife of the *Chatelet* at *Paris*, who having visited a Servant-Maid under Sentence of Death, that pleaded her Belly, positively affirm'd that she was not with Child. But when the Body of this Maid was afterwards publickly dissected, and a Child of four Months or there-abouts was found in her Womb, the Midwife was oblig'd to pay a great Fine, and was forbid the Exercise of her Profession for ever.

If a big-bellied Woman fights with her Neighbours, and happens to be hurt, the Midwife must be very impartial in making her Report about it; for the Judges ordinarily give Damages accordingly.

Midwives must not pretend to tell whether a Woman's a Maid, or not; for 'tis out of their reach to know it, neither are the Signs of Virginity so very clear and certain. She must leave this to skilful Anatomists, who yet own that they themselves are often at a loss about it. Some lewd Women have sold their Maidenheads to fifteen or twenty different Men one after another, and some of 'em Surgeons and Anatomists too, and each thought he got it; tho 'twas all a Trick, and the Effect of a little Management only. Now if the Learned have been impos'd upon *here*, is it not to be expected that a well-meaning Midwife may? Let her therefore take care that she become not the *Dupe* to these Jades some time or other.

When Women who have satisfy'd their Curiosity find, to their Sorrow, that they are with Child, they frequently chuse to *lie-in* at a Midwife's House, and, as they deserve, pay roundly for it. But 'tis very hard, that whereas the thing ought never to be heard of more, after they have paid the Midwife according to agreement, that she shou'd tyrannize over them, and extort Money from 'em from time to time by threatening to discover all, and ruin their Reputation, if they give her not what she asks. Midwives ought to keep themselves free from this villanous and cruel Practice. Lastly, they must neither talk of what they see in other Houses, and at other *Labours*; neither must they answer any Questions of that nature which are put to 'em by impertinent Women, who want to know every thing which their Neighbours do: for if Women in Labour observe that they are all Twittle-twattle, they must needs expect to be treated by them as they do others, that is to say, to be the Subject of their Conversation and Prattling at the next Labour they are called to.

CHAP.

## CHAP. III.

### *Reasons why Women ought to be* laid *by Midwives only,*

THIS Chapter contains a formal Plea for a Woman's being *laid* by Midwives only, and not by a Man-Midwife: The next contains *another* in behalf of Men-Midwives: And the third, some short Reflections upon the whole.

A Priest, Nephew to the two Mistresses *De la Marche*, Midwives in the *Hotel-Dieu* of *Paris*, about forty Years ago, and very considerable Women in their way, was the first who wrote in favour of Midwives. And the good Man, who understood nothing of Physick, but talks like an orthodox and well-meaning Divine, takes not upon him to dictate; but endeavours, by Quotations out of Fathers, who make mention of Midwives, to shew that since they take no notice of Men-Midwives, therefore there was no such thing in those Days.

He cites a Passage out of St. *Jerome*, who, speaking of the Virgin *Mary*'s Delivery, tells us that she had neither Assistance of Midwives, nor any other Women. Whence he infers, that Women and Midwives only then gave Women the necessary Help. To prove that Women ought not to make use of Men-Midwives, he alledges, That by doing of it they hazard the Loss of their Modesty, Purity, Fidelity to their Husbands, of their being Examples of Virtue and Mortification.

As to *Modesty*, he affirms that a Woman offends against it, when she allows a Man, before whom she ought to be very reserv'd, but to touch the *Parts*, much more to look upon *'em*: And he says, that the only way to preserve it, is to suffer none but those of her own Sex to touch or view *them*. He quotes St. *Jerome*, who says, That Modesty is a delicate Flower, which withereth by the gentlest Touch, and is not to be kept inviolable but amongst those of the same Sex. Neither does he forget *Zeno* the Martyr's *Elogium* of it, who calls it the Felicity of Virgins, the Fidelity of Wives, the Strength and Security of Widows, the Purity of Priests, the Riches of the Poor, the Treasure of the Rich, the Honour of the Little, and the Glory of the Great Ones, and the Guardian of all Conditions of Men.

He tells us that the *Purity* of the Mind is sometimes stain'd and wounded, when a Woman suffers a Man to lay hands upon her; and that this is apt to inspire the Man with impure Thoughts, and the Woman also, in the Intervals of her Labour-Pains; which he undertakes to prove by Citations out of the *Fathers*. St. *Isidore* observes, that as we get bodily Diseases by Contact, so we contract spiritual *ones* by it also. St. *Jerome* says that the simple Touch in Persons of different Sexes is both contagious and venomous. *Thomas à Kempis* bids us watch over our Senses, and in particular *that* of Feeling, if we would enjoy Health of Body, and Peace of Mind. And the Abbot *Rupert* tells us, that 'tis by this Sense that both Body and Soul are chiefly ruined.

As to *Faithfulness to the Marriage-Bed*, he says, That since young Women *only* bring Children, the making use of a Man-Midwife is dangerous, because

because of the Livelineſs of their Imagination, the Heat and Strength of their Paſſions, and the Eaſineſs of their Temper; and that it accuſtoms them to be familiar with Strangers, and very often in the end gives them both a Diſpoſition, and furniſhes them with Opportunities of being unfaithful to their Husbands: and that we frequently find that thoſe who will have themſelves *laid* by Men, are more looſe than thoſe who make uſe of Midwives: That St. *Chryſoſtom* adviſes married Women to be afraid of every Man but their own Husbands; and that the Fathers of the Church ſay that voluntary Immodeſty, and the expoſing much of their Bodies to publick View, or allowing Men but to touch them gently, is a kind of ſpiritual Adultery, and a Preſage and Sign of future Diſloyalty and Infidelity to their Husbands. 

As to *Good Example*, he exhorts all married Women to give *it* to one another, ſince they are govern'd chiefly by what they ſee one another do; and therefore he begs of them not to authorize the Uſe of Men-Midwives by their Example. He thinks that ſince 'tis their Duty to ſet before their Daughters the Danger of converſing and being familiar with Men, they ought not to call for their Aſſiſtance in *Labour*; for in vain do they endeavour to inſpire and arm them with this Thought, while they allow Men to have frequent Acceſs to themſelves: for this raiſes a Curioſity in their Daughters, and furniſhes both them and their Companions with Matter of Speculation and Converſation, and makes 'em apprehend leſs from Men than they otherwiſe wou'd, and gives them a tacit and inward Aſſurance when they are reprov'd for keeping them company. The Author does not take himſelf to be an Enemy to the Fair Sex, becauſe he puts them in mind of

their Frailty, and tells them they are expos'd to greater Dangers than Men; and that they ought not only to abstain from Evil, but likewise carefully to avoid whatever leads to it, or may make their Virtue be in the least suspected: and advises them to behave themselves so, that their Consciences may not only not accuse them, but that they may be bright Examples of Virtue to those who are about 'em.

As to *Mortification*, he alledges, That since Women have no Aversion to Men, but rather a natural Inclination for them, those who are married ought to mortify this Desire and Passion, and in order to it, not suffer Men-Midwives to come nigh 'em; that they may preserve their Modesty, live in Purity, be constant and faithful to their Husbands, be good Examples to others, and practise that Mortification which the Christian Religion so strictly enjoins.

This small Book is divided into Four Parts: The First shews, That Women ought never to make use of Men-Midwives but in Cases of extreme Necessity. The Second, That it is most reasonable to call for and rely upon the Assistance of Midwives in Labour. The Third, That Midwifery hath always been practis'd by Women only; and that 'tis their Business and Province by Prescription. The Fourth contains Answers to ten Objections, which he supposes are all that can possibly be brought against his Doctrine. This done, he concludes with a solemn Declaration that he writes not either out of Interest or Prejudice, but from a Principle of Conscience; calling God to witness that he does it out of pure Love to the Truth, to quiet the Consciences, and for the Salvation of others; but above all for the Glory of God.

Another

Another small Book, on the same Subject, was published in the Year 1708, entiled, *De l'Indecence aux Hommes d'accoucher les Femmes*; printed at *Trevoux*, and sold at *Paris* by *Jacques Estienne*, Bookseller in the *Rue St. Jacques*. Chap. 3.

Tho the Author puts not his Name to the Book, yet 'tis not doubted that 'tis the same Physician of the Faculty of *Paris*, who wrote the *Traité des Dispenses du Careme*. It is full of Rhetorical Figures and Flourishes, calculated to draw the Reader into the Opinion which he labours so much to establish.

In the *Preface* the Author lays down a Plan of the Battel which he intends to give the Men-Midwives: He raises such Batteries as he hopes will be sufficient to ruin them, and omits nothing that he thinks can contribute towards his obtaining a compleat Victory over them, which he reckons himself very sure of. This *Preface* being, as it were, the Body of his advanc'd Guard, which consists commonly of the best Troops, I have thought fit to give an Abstract of it *here*, that the Reader may see the Order of Battel by which Men-Midwives are to be crush'd in pieces, and utterly destroy'd at once.

The first thing he tells us, is, That he writes at the Request of some Religious Ladies, who scrupled the being *laid* by Men, and had consulted him upon this Head.

He pretends *next* to enquire if Men were ever authoriz'd by any State to profess Midwifery; and endeavours to shew that they never were encourag'd or protected in practising an Art which in their hands is repugnant to Nature it self; and that the *Hebrews*, and all other Nations *since* after their Example, have made use of Midwives only.

He endeavours afterwards to prove that neither the Scriptures nor Fathers have said any thing in defence or excuse of Mens taking upon them the Practice of Midwifery; that States have not confirm'd it by their Edicts; that Magistrates have not approved of it; and that they have never yet been made a Corporation, as all other useful Professions, which Religion countenances, have been.

He does likewise his best to answer the Objections which are ordinarily brought against Midwives; such as their natural Ignorance, want of Capacity or Genius for Surgery, and their being oblig'd for the most part to Surgeons for the *little* that they understand of Midwifery *it self.*

Upon the whole, he concludes, that there is no occasion for Men-Midwives, but that Women may do the Business; that they are very capable of it; and that private Interest alone, and the Injustice of a few Men, have robb'd them of it; that they have made Profession of it from the beginning of the World; that the Christian Religion approves of it; and that Princes and Magistrates have confirm'd it by their Regulations and Edicts.

After so fine an Harangue, and such specious Reasonings, which he fancies are unanswerable, he hugs himself in the Conceit of his having obtain'd a compleat Victory, and sings Triumph before he has really got it; saying, That the Men-Midwives little expected such a terrible Blow; and that 'tis not to be doubted but they will pronounce the Conclusion false, malicious, unjust, and pernicious: And indeed, adds he, 'tis no wonder they should resent it so highly, seeing it takes from them a Profession and Employ which gives them both Reputation and Interest in the World;

World; the far greater Share of which they might easily have engross'd to themselves in a very short time. Chap. 3.

He seems afterwards to relent, and soften Things a little, and tells the Surgeons who practise Midwifery, That tho they may find it difficult to renounce their Interest in obedience to that of Religion, and to submit to the Rules of Reason, Modesty, and Decency, yet he hopes that they will own 'tis not out of Prejudice or Passion that he attacks them, but that he only advises them to relinquish the Profession and Practice of a Business which nothing but want of Bread will make excusable in them, and which they are not allow'd to make a Trade of. He adds moreover, That a Man's *laying* of Women, especially in natural *Labours*, has been complain'd of and remonstrated against in all Ages; and that it is not only contrary to the Law of *Nature*, and contrary to the Judgment and Opinion of the most Ghostly Fathers, whose Province it is to confess others, but that the most able Physicians have strenuously oppos'd themselves to it; and that Truth, whose Cause they maintain, ought certainly to be no less venerable, powerful, and amiable, because it is not adher'd to but by a few.

*Here* he takes notice of the Complaint which a very able Physician of the Faculty of *Paris* made of the *French* Ladies, who allow the Surgeons that practise Midwifery not only to lay hands on them, but likewise to view them without any Ceremony. He cites a Book, entitled, *Dissertation sur les Accouchments*, written by an Anonymous Author, the very same which we have spoke of, which he says no Physician or Divine needs be asham'd to own himself the Author of. He tells us, That his meeting with this little Book while he was writing, encourag'd him mightily

to

to write on, and finish his own; and that he was infinitely pleas'd to find that a great many Cases and Reasonings in that Author were the same with his; and tells us, that the Zeal and Charity which were so conspicuous through the whole, contributed not a little to inflame *his* also.

He owns, however, that at first he thought only of reprinting that *Dissertation*; but that he was advis'd and prevail'd upon to publish his own, because he had added some Cases and Remarks which had escap'd the Observation and Exactness of the Author; and because 'twas necessary to make some new Reflections, in consideration of the Footing that Men-Midwives had got in the World, from the Time which that Author wrote in.

He concludes his *Preface* by begging of Women newly brought to bed to consider, that what he proposes is conformable to the Principles of Religion and Maxims of Physick, and that what is requir'd and expected from their Modesty can neither endanger their Lives, nor prejudice their Health; and that therefore they will be subject to Rules, edify the Christian Church, do Justice to those of their own Sex, and put that Confidence in them which they were honour'd with from the beginning of the World, and which he hopes they will be found truly worthy of: assuring them, that they need not doubt that God will recompense their Piety, and bless them with easy and safe Deliveries, and free their Sex in this respect, at least, from dependance upon Men. Lastly, he addresses himself to Men-Midwives, and exhorts them never to offer their Service to Women, except in Cases of extreme Necessity.

Having made this pathetick *Preface*, he begins his Book, which he divides into eight Chapters, in

in which he endeavours to prove, that Men ought not to practise Midwifery, and that Women only have a right to do it, and are best qualified for it. He leaves no Stone unturn'd, and to make good his Assertion, runs back to the first Ages. He goes to *Hebrews*, *Jews*, and *Romans* for Authorities: he consults the Fathers, quotes devout Men, confessing Priests, and Pagans; and rather than fall short of proving what he contends for, he has recourse to Fables, Paganism, and the Christian Religion, one after another, as he thinks they will best serve his purpose. Ch. 3.

He endeavours to persuade the Ladies rather to hazard their Lives, than to suffer Surgeons to lay hands on them. He sets before 'em some who were thus rigidly Vertuous, and calls them Martyrs of Modesty; and maintains, that Women ought not only to behave themselves *so* when they want Help in *Labour*, but also in all other Diseases of *these Parts*: assuring them, that the same Providence which afflicts them with Diseases for the punishment of their Sins, will take care of 'em. He tells Surgeons likewise, that if they'll take his Advice, and quit the unlawful Business of Midwifery, they need not doubt that Providence will amply reward their Virtue also.

He concludes his Book with a solemn Declaration, that he has nothing to object against Surgery, but Men-Midwives *only*, whom he calls a new sort of Operators, unknown to our Fathers; an amphibious Sect, hard to be defin'd, and an uncertain Profession. He says, that the Man-Midwife takes himself to be superior to a Surgeon, and prescribes to him; and therefore if a Patient is to be blooded, if a Wound is to be dressed, or any Operation to be perform'd, another Surgeon besides the Man-Midwife must

do

do it, while he harangues, directs, and orders: That Surgeons ought not to suffer themselves to be treated *so* by those who for the most part know less than themselves. He can't endure that Men-Midwives should take upon them to prescribe in Diseases which are incident to Women with Child, or in Childbed: he asks them where they have learnt, and under what Masters? He tells them, that it does not become them, in the quality of Surgeons, to be so assuming, seeing their Brethren, who understand Surgery much better than they, have more Modesty than to pretend to any such thing: That they have no Title to the Protection of Surgery, seeing they have cast off its Yoke, and set themselves above it: And that nothing can be more for the Reputation and Honour of Surgery and Surgeons, than to make it appear to the World, that those who have been bred up with them, but are above their Business, and observe not the Precepts of Surgery, and other Rules laid down to 'em, deserve not to be encouraged or trusted.

## CHAP. IV.

### *Reasons why Women ought to be* laid *by Men-Midwives.*

AS the Reader has heard the Cause of Midwives fully pleaded in the preceding Chapter; so we beg that he will suspend his Judgment till he hears *that* of Men-Midwives also in *this:* and we doubt not that he will find himself obliged to give it in their favour.

These

These two furious and avowed Enemies to Men-Midwives, attack 'em so fiercely with the Weapons both of Religion and Physick, that were it not for the daily Services which they do to States and Families, by saving the Lives of Children and Mothers, they must fall before 'em, and be utterly undone. But tho their Services and Successes loudly proclaim their Usefulness; yet we ought by no means to give 'em up as a Prey to their Enemies, but to make a proper defence for 'em, which I hope I may be allowed to do, since they are my Brethren. Chap. 4.

'Tis necessary that I should put those poor Women in heart again, who are frighted by two Doctors; one a Divine, who tells 'em, that their Souls are in danger; the other a Physician, who maintains, that they run the risk of their Lives, if they suffer themselves to be *laid* by Men. 'Tis a pity not to set 'em free from their Doubts and Fears, and to let 'em see how groundless they are, and how much these worthy Gentlemen have impos'd upon 'em.

Since these two Authors have set forth the Usefulness of Midwives in terms rather too strong, 'tis but fit that something should be said in behalf of Men-Midwives, both in Justice to them and the Publick.

I will divide my Answer into eight Chapters, as the Author of the *Indecence, &c.* has done; but shall not affect a rhetorical and lofty Stile, for every one must not be so learn'd as he is: the most I pretend to, as a Surgeon, is to give a plain, faithful, and succinct Account of such Cases and Things as I know to be true. I shall endeavour to shew in the first Chapter, that Midwifery has in all Ages been practis'd by Surgeons, and consequently that there's no necessity for its being authoriz'd by States. In the second and

and third, that Men and Women have both practis'd *it* in all Nations; and that Women have made use of Men-Midwives in all Ages. In the 4th, 5th, and 6th, that the Christian Religion neither forbids nor condemns Mens practising Midwifery: that they have always been useful *this way*, and ought to be made use of still. In the 7th, that Women are not so well qualified to practise Midwifery as Men are. And in the 8th, I shall give my Opinion concerning the Author's Objections and Answers.

I have writ a large Dissertation on this Subject, too long to be inserted *here*, and therefore shall only give an Abstract of each Chapter, which will shew the Plan and Design of it, and will, I hope, convince the Reader, that Men-Midwives ought to be encourag'd, and that they are absolutely necessary to make every State happy.

## Chap. I.

THE Author ought to have address'd himself to the Fair Sex, whom he endeavours to dissuade from making use of the Assistance of Men in *Labour*; and therefore ought to have had a different Title, as those who understand the Language may see. He says likewise that Midwives have Statutes in their favour, and that they are authorized to practise by Magistrates; whereas Men have no such Privilege to boast of. But he ought to have consider'd, before he advanc'd this, that Midwifery being a Branch and Operation of Surgery, nothing more was necessary, but that one should be a Master, or profess'd Surgeon, in order to justify his practising of *it*; but that as to Women, who have no right to practise Surgery, that it was necessary that they should have Statutes and Regulations in their

their favour; and that they are only indulged and tolerated in the practice of it, because some Women governing themselves by a Principle of excessive Modesty, chuse rather to be brought to bed alone, than to be obliged to Men for their Help. Ch. 4.

'Tis undeniable, that nothing becomes a Woman more than Modesty; but 'tis no less certain, that a Woman's being *laid* by a Man, is perfectly consistent with it, and that the Practice is no way repugnant to Nature, as some would have it, who carry the Notion of Modesty too far, and tell us, that Marriage, were it not for the necessity of peopling the World, would be both dishonourable and scandalous; and that tho Women take the greatest care not to offend against Modesty, and to guard against Censure, yet they must not expose themselves to Danger, but when there's a very great Reason for it: that they have not always *the Rule over their own Spirits*: and that tho they *should*, yet they can't be assur'd that another will; that there's always a Danger in the case; and that tho a Man's outward Behaviour is decent, yet he is apt to be secretly transported, and sometimes is encourag'd and prompted to offer at things which are very unhandsome: that we don't always speak what we think; and that it is unseemly for a Man to be a Midwife; that 'tis troublesome and difficult for a Woman; and to say no more, dangerous for both.

'Tis not possible to write more ingeniously in defence of Female Modesty, nor to describe the most minute Circumstances which defile the Imagination, better: but at the same time, if we consider how things are manag'd when a Woman's in *Labour*, with respect to her, the Man-Midwife, and the Assistants, these Apprehensions and

and Fears must vanish, and appear frivolous and imaginary.

Those who inveigh against a Man's viewing the *Parts* in *Labour*, betray the grossest Ignorance; for the Woman is never exposed, and the Surgeon only gives the necessary Assistance, and brings away the Child with his Hand: and Monsieur *Desforges*, who was blind, did his Office as well as when he had his Sight in perfection. Ignorance of this is somewhat excusable in a Priest, who knows nothing of the matter; but 'tis unpardonable in a Physician of the Faculty of *Paris*, who hath practised Medicine for forty Years, and who out of the abundance of his Zeal pretends to reform an Abuse which he knows nothing of, and which is not to be met with any where.

## Chap. II.

THE two Authors who have writ in favour of Midwives, endeavour to find out and bring together from the remotest Antiquity whatever makes for their purpose: they tell us, that *Rachel*, *Tamar*, and *Ruth*, who were Persons of the first Rank in those days, were *laid* by Midwives. Whence they infer, that no mention being made of Men of that Profession, there was *then* no such thing. But there possibly may have been Men-Midwives, tho the Historian takes no notice of them; as those who have given a particular Account of the Labour of *Mary Terese* of *Austria*, late Queen of *France*, and Wife of *Lewis* the XIVth, speak not one word of the famous Man-Midwife *Boucher*, tho he was in the Ward-Robe, next to the Chamber where the Queen *lay in*, to have deliver'd her in case of necessity, and who when the *Dauphine* was in the Birth, was allowed to come into the Room, and lay

Hands

Hands upon her, tho she knew nothing of it, for being born in *Spain*, she would not suffer a Man-Midwife to come nigh her. But the Ladies even in *those Parts* are not so very scrupulous now-a-days, for both the Queens of *Spain* and *Sicily* make use of Men-Midwives, as we have observ'd in another place. Chap. 4.

But tho we grant that there have been Midwives and Men-Midwives in all Ages, 'tis evident that if *Eve* had any Help in bringing forth her first Children till some of 'em grew up, as 'tis probable she had, she must have been obliged to *Adam* for it; and that therefore he was the first who did the Office of a Midwife, and it is to be presumed taught the Women the Art of it, so far as he understood it.

Our two Authors set a mighty Value upon Midwives, because one of them gave the World a *Socrates*. But tho he was one of the greatest Men of the Age in which he lived, it does not therefore follow, that his Mother *Phanocle* excell'd in the Profession of Midwifery; for we frequently see, that very mean and illiterate People beget and bring forth the brightest Genius's, and most learned Men. Cardinal *Wolsey* was the Son of a Butcher; the Mareschal *Faber*, of a Bookseller of *Sedan*; *James Amiot*, Grand-Almoner of *France*, of a Tanner of *Melun*: and so of many others.

## Chap. III.

THE Author of the *Indecency*, &c. undertakes to make it appear from History, that Women, in all Ages, made use of Midwives *only* in Labour. Of this he brings three Proofs. 1. He tells us how the Pagans order'd things. 2. He relates the Story of *Agnonice* amongst the *Athe-*

*nians.* 3. He pretends to let us know what has been, and what is the Custom in the *Hotel-Dieu* at *Paris.* But I hope, with the help of these three Topicks, to refute all that he has said on this Head.

I'm surpriz'd to find so religious an Author rake into Paganism for proof of what he advances. He tells us, that the *Pagans* appointed none but Female Deities to preside and watch over Womens Labour: Whence he thinks he may infer, that Women only have a right to practise Midwifery; as if a *Pagan* Law ought to be a Rule for Mankind to govern themselves by. He reckons up these Deities; he assigns them their several Offices, and expresses his Admiration of the Foresight aud Conduct of the *Pagans*, because they made choice of Female Deities only in this Case; being sensible that nothing that resembles Man ought to be witness to the Secrets and Mysteries of *Labours.* But seeing the *Romans* appointed Male Deities to preside over *them*, as *Ovid* tells us, and as appears by their Statues, which are yet to be seen in the Capitol at *Rome*; we may very well affirm, that Men have at least as good a right to practise Midwifery, as Women have.

Amongst the *Athenians*, both Men and Women practis'd Physick and Midwifery; till the Areopagus or Senate thought fit to forbid the latter. Upon which, a certain young Woman, nam'd *Agnonice*, put on Mens Apparel, and went to *Herophilus*'s School, *where* having studied both Arts, she practis'd them for some time; when being discover'd, and upon the point of suffering the Punishment which the Law directed, the *Athenian* Ladies came in a Body to the Senate, and begg'd that she might be pardon'd, and that that Law might be repeal'd. Both which the

Senate

Senate readily granted. This, however, is far from proving what the Author advances; which is, That Men in antient Times did not practise Midwifery. Neither do these two Authors speak truth, when they tell us, that the Governors of the *Hotel-Dieu* at *Paris* allow none but Women to enter that Hospital. 'Tis true, that the Midwives ordinarily serve their time *there*; but 'tis no less certain, that Men go into it: *Portaile*, *Mauriceau*, *Defrades*, *Dionis*, and a great many others who have excell'd in the Art, have practis'd *there* for a considerable time; and the principal Midwife is obliged, in all difficult Labours, to call to her Assistance the Surgeon who serves and attends *there* in order to obtain his Freedom. I'm surpriz'd to find a Physician, who has resided at *Paris* all his Life, so ignorant of what is done there every day. 'Tis no wonder that after that, we suspect every thing that he relates. Chap. 4.

## Chap. IV.

DID the Christian Religion forbid Men the Practice of Midwifery, it would likewise condemn their performing any other Chirurgical Operations upon Women; for 'tis impossible to do it without seeing or touching them: and these two Authors maintain, that every time that we look upon a Woman, or touch her, we are in great danger of sinning; and take Women to be such dangerous things, that they bring Quotations out of the Fathers, who strictly forbid us to look upon them. They tell us also, that of all the Senses, *that* of Feeling is the most dangerous and seducing, because it is the great and universal Sense, a constant Ingredient of all the rest, and that which makes the greatest Impression upon us, and moves the whole Machine.

Having thus begg'd of Women to distrust Men-Midwives, tho 'tis certain that several of 'em are discreet Persons, of known Probity, and out of the reach either of Suspicion or Detraction; they next advise the Men-Midwives themselves not to trust to their own Virtue; and cite one of the Fathers of the Church, who bids Men take heed how they converse with Women, and warns them to be afraid of every one of them, their own Mothers not excepted.

Now, if we will be advis'd by these Gentlemen, not only Men-Midwives, but Surgeons also, must leave off their Business, that they may not become criminal. But since they carry the thing so extravagantly far, let us not mind what they say, but give our Assistance to those who want it, and apply to us for it; knowing that our most holy Religion neither condemns Mens practising Surgery nor Midwifery.

## Chap. V.

THE Author of the *Indecency*, &c. maintains next, That Men-Midwives ought not to be call'd except in Cases of necessity; that is to say, when the Life of Mother or Child are in danger; which he says does not happen once in a thousand *Labours*. Women would not be much to be pitied if this were true; but I dare say, that of a thousand *Labours*, eight hundred at least are bad, and that Women stand in need of skilful Assistance in them: and had this Author been present at one Labour of a thousand, he had not advanced a Proposition so much out of the way; neither had he attempted to have comforted them by saying, that they must trust to Providence, which had permitted them to fall into these Circumstances; for upon this Principle he might

might easily have told 'em, that they had no further occasion in their Extremity to expect Relief either from Men-Midwives or Physicians, but from Providence *only*. Chap. 4.

But has the Author a right to rail at Men-Midwives at this rate? and to attempt to destroy their Reputation, by charging them with Ignorance, and filling six Pages of his Book with scurrilous Invectives, and Reasons, as he calls them, every one falser than another, in order to dissuade People from employing them? Must he not be sensible, that he falls very much short of Christian Charity, tho he pretends in his Book to govern himself by no other Rule than *that* of Christianity? When he represents all Men-Midwives as a Set of Men who are grosly ignorant, ought he not at least to have excepted *Guillemeau*, Surgeon to the King; *La Cuisse*, *Boucher*, and *Mauriceau*, who hath writ a Book which is universally esteemed, and which his beloved Midwives make so very much use of? Does he not arraign and condemn not only the Conduct of all those discreet Women who employ and put Confidence in Men-Midwives, but likewise of those able and celebrated Physicians, who in the Diseases of Women with Child and in Childbed, ask their Opinion every day? Have not I known Messieurs *Daquin*, *Fagon*, and *Moreau*, one first Physician to the King, the other to the Queen, and the third to the Dauphiness, refuse to prescribe for the Princesses, but in conjunction with their Men-Midwives? Which shews, that they are neither Ignorant, nor Useless, as the Author of the *Indecency* would persuade us they are.

## Chap. VI.

BEFORE the Author convinces us that the Custom of Womens being *laid* by Men ought to be left off, he must make it appear, that it is a bad one, that it is contrary to the Interest of our Country; that it is unreasonable; and that none make use of it, but weak and ignorant People: which I'm apt to think will be no easy Task, seeing Queens, Princesses of the Blood, and Ladies of the first Quality chuse to be *laid* by Men; and Magistrates and other Rulers, who are the best Judges of things, not only approve of this Custom, but oblige their own Wives to submit to it. Why should this Author be so earnest to have this forbid by a Law, when no body desires it? Women, who are the only Party concerned, are very well satisfy'd: Midwives don't complain: Surgeons ask nothing. And 'tis not in his power to make any Misdemeanor appear against Men-Midwives. Why should he alone make all this Bustle, who is not marry'd; and if he were, may order his Wife to be *laid* by what Midwife be pleases? He has taken the trouble to write a Book which hath incensed the Women against him, because he hath taken upon him in it to dictate to them, and to declare against a Custom which no body will lay aside, notwithstanding all that he has said.

## Chap. VII.

'TIS easy to make it appear, that Women are not so well qualify'd for practising Midwifery as Men are, tho that Author pretends to shew that they are; but he has said so many fine things of them, and has spoken so much ill of Men, that I'm persuaded he will never be able to make one Proselyte.

Proselyte. He asks, in the first place, whence this pretended Incapacity in Women proceeds? If from the Tenderness and Delicacy of their Complexions; from their want of Strength or *Genius*; or from an Ignorance peculiar to the Sex? To which we answer, That these Things may contribute towards it. But be that as it will, Surgeons give every day such convincing Proofs of their understanding Midwifery much better than Women, that they have nothing to apprehend from this Author, who is at liberty to appeal to the People when he pleases. I shall only observe one thing, which is this, That had he only said that Women are as well qualified for the Practice of Midwifery as Men, instead of saying that they are better qualify'd for it, it had been easier for him to have maintain'd his Argument: But tho he had express'd himself so, it must have been understood of ordinary and natural Labours only; for in difficult and laborious ones, Midwives are forc'd to give place to Surgeons every day, who *lay* Women in presence of 'em, after they have own'd that it surpasses their Skill, and that they can proceed no further. Chap. 4.

## Chap. VIII.

OUR Author in the last place makes seven Objections only against his own Doctrine in behalf of Men-Midwives; whereas 'tis the easiest thing in Nature to make above an hundred. But, which is still worse, he is so disingenuous as to make choice of such as furnish him with a new Opportunity of throwing his keen and poisoned Arrows at the Men-Midwives; and the Answers which he makes to the Objections are so very faint and weak, that 'tis not worth while to put them down here.

## CHAP. V.

### *Whether Women ought rather to make use of a Man-Midwife, or a Midwife, in Labour.*

THE Decision of this Controversy must by no means be referr'd either to the Midwives, and the two Anonymous Authors at their Head, or to the Surgeons or Men-Midwives; for they are the two contending Parties, and we know very well for whom they will respectively give it: 'tis more proper to leave it to Women who bring Children, and therefore have a real Interest in the Question.

Princesses and Ladies of Quality give the preference to the Men-Midwives every day; good honest Citizens Wives follow their Example; and the Tradesmen's and other inferior People's Wives frequently say that they would certainly make use of 'em, if they could afford to pay them handsomely. Which shews that they all take themselves to be safer in the hands of the Man-Midwife, than the Midwife.

A great many Mothers advise their Daughters to make use of Midwives, as they did before 'em; and tell them that the Midwives brought them into the World; and that they hope it won't fare worse with them than it did with themselves; but that if there's occasion for it, a Man-Midwife shall certainly be called. Some few now and then hearken to these Reasons; but a great many others, wisely considering that their *Labour* may possibly be difficult, and require the

the Assistance and Skill of the Surgeon, chuse rather to have him with them at first, than to hazard being told in time of their great Distress, that the Midwife wants Advice and Help; because this is apt to put them into a great Fright, and to make 'em look upon themselves as dead Women. Chap. 5.

Upon the whole, the *Dissertation upon Labours*, which this Ghostly Father publish'd above thirty Years ago, has had no great Effect, and has by by no means answer'd his Expectations. Neither has the *Indecency*, *&c.* had better Success; nor had the Anonymous Author reason to think it would, seeing he has stuffed it with most bitter and scurrilous Invectives against the Surgeons of *Paris*, who have improved Surgery so very much, that their Writings are translated into most Languages in *Europe*. If he thought himself oblig'd in Conscience, as he tells us, to write in favour of Midwives, might he not have done it with Meekness and Charity, without endeavouring to establish them upon the Ruins of Surgeons, whom he ridiculously represents as Persons so very ignorant, that they know not where to make an ordinary Incision in any part of human Body?

We shall conclude with this Remark, That there's a far greater Number of skilful and able Surgeons in *Paris*, than in any other City of *France*, or in any Part of *Europe* beside; that *here* Midwives, by serving an Apprenticeship in the *Hotel-Dieu*, and attending the Lessons given by the Surgeons in the School of St. *Cosme*, who likewise have the Privilege of examining and approving of 'em, may be fully instructed in their Business, and certify'd as duly qualified to practise every where. We shall therefore leave it to Women to chuse either a Surgeon or Midwife to *lay them*, as they please.

CHAP.

## CHAP. VI.

### *All Mothers ought to suckle their own Children.*

I AM sensible that 'tis no easy Matter to persuade Mothers to nurse their Children; for tho a great many have writ on the Subject, yet they have very little reason to boast of their Success. However, seeing I write a *General Treatise of Midwifery*, I take it to be my Duty, by way of Appendix to it, to use my Endeavours to persuade Mothers to do *theirs* to their Children; and I pray God that I may prevail with some, who may become Examples to the rest.

We have already observ'd that the Child in the Womb is nourish'd by the Menstrual Blood, which ceases, for the most part, to flow after a Woman conceives; and that the Child is no sooner born, but this Blood, or the Chyle out of which 'tis form'd, flows into the Breasts, and is *there* turn'd into Milk for its Nourishment, till it is capable of digesting Food that is more solid. Hence it is manifest, that Mothers who put their Children to nurse are very unjust to 'em, and defraud them of that Milk which *Nature* has provided for 'em.

We see also, that new-born Babes by a natural Instinct search for the Mother's Breast, and suck them as all other Animals do, tho they are not offer'd to them. The Mother's first Milk likewise not only does them no prejudice, as it does other Children, but agrees perfectly well with them,

them, and nourishes them more than any other, tho it be ever so good. Chap. 6.

In antient Times every Mother gave suck to her Child: *Eve* suckled hers, and so did the first Woman after her. 'Tis true that a Nurse was design'd for *Moses* by the Daughter of *Pharaoh*; but the Mother took care to be the Person. In the most barbarous and remote Parts of the Earth, Mothers give suck to their own Children: And amongst the *Chinese* 'tis thought dishonourable to decline it; and such Women as do it are consider'd rather as Mistresses and Courtezans, than Women of Character.

The Fathers of the Church have often inculcated this Duty upon Mothers, and have bestow'd upon those Mothers who neglected it the name of Step-Mothers, have charg'd them with both Impiety and Inhumanity; and have compared those Children who do not suck their Mothers to Foundlings, who neither distinguish nor love them, having drank in strange Love with strange Milk. And a certain modern Author has treated them as a sort of adulterous Persons, who give other Mothers to their Husbands Children, by refusing to give them suck.

The Blessed Virgin her self nurs'd the Saviour of the World. Queens, Princesses, and Ladies of the first Quality, in antient Times were not asham'd to suckle their Children, and thought themselves oblig'd to do it by the Laws of both God and Man, which are not yet chang'd. And one would think that such bright Examples of Virtue deserve to be followed; and that Mothers, out of Indolence, Ease, and Luxury, should not deny their Children the Food that *Nature* has appointed for 'em.

'Tis only after the Child is born that the Mother has Opportunities of giving Proofs of her Affection

Affection and Tenderness; for what can she be said to have done for it before it saw the Light? 'Tis certain that she hath allow'd her Husband the *full Enjoyment*, but *probably* upon a different Motive from *that* of having Children: She hath also carried it about for nine Months, and nourish'd it with her Blood; which she did by the Appointment of Nature, and perhaps against her Will. What has she then done for it before it comes into the World? Or what can she do better for it than to give it her own Milk, which it has a natural Right to, and suits it better than *that* of any other Women?

But if she will not allow it to suck her, but puts it to Nurse, it is under very slender Obligations to her, for she exposes it to a great many Inconveniences and Dangers; and 'tis not to be expected that it will meet with Milk which suits it nearly so well as her own, which is made of the same Blood with which it was nourish'd in the Womb. *Hence* come Gripes, Cholick Pains, Feverishnesses, Crying, Redness, Breaking out into Pimples and Scabs, which make it fall off, and with time destroy it, while no body's to be blam'd for it but its unnatural Mother.

But if natural Affection, and the innumerable Inconveniences to which the Mother exposes her Child, by refusing to suckle it, are not sufficient to persuade her to do her Duty, I would beg of her to consider that she strives to change the natural Course of the Liquors, and that she acts in opposition both to the Will of the Creator, and an establish'd Providence or Order of Things; and that hence she draws upon herself a great many Diseases, such as Rheumatism, Abcesses, Schirrous and Cancerous Tumours; for the finer Parts of the Milk having taken another Rout, the grosser coagulate, and cause those tedious and obstinate

obstinate Diseases. But tho she may have the good Fortune to escape these Inconveniences, it is still necessary for her to provide against them as far as she can, as worse than any thing that can possibly happen to her by nursing her Children. 

Married Women have ordinarily a Child every Year; but those who give suck *one* in two or three *only:* which ought to induce Mothers to suckle their own Children, because Women with Child are subject to a great many more Diseases than Nurses: And we commonly see Women with Child, or in Child-bed, frequently die, but Nurses very rarely.

If a Woman would have a Child love her, let her nurse it; for with her Milk it will suck in the same virtuous Dispositions which she has, and will not fail to be grateful to her so long as it lives.

If it is ask'd, whether a Child is more indebted to its Mother or Nurse, we are of opinion that it owes more to its Nurse. The Mother nourishes it only nine Months, while it's in the Womb, and can't help doing *so*; whereas the Nurse brings it up, and gives it Food for whole Years. 'Tis certain that the young *Roman* was of this Sentiment, who, when his Mother and Nurse came to wait on him upon his Return from the Army, embrac'd his Nurse *first*, and made her a greater Present than he did his Mother.

We need not wonder at it, that Children ordinarily love their Nurses better than their Mothers; for the Mother, when the Child is born, puts it out to Nurse, and sees it very seldom; but the Nurse has Care of it Night and Day, keeps it clean, rocks it, sings to it, gives it every thing that it wants, and so soon as it begins to cry, uncovers her Breast, puts the Nipple into its Mouth,

Mouth, and satisfies its Hunger. So soon as it begins to understand any thing, it readily distinguishes her from other Women; it laughs and chatters with her, and is never so pleas'd as when it's in her Arms, who hugs and kisses it a thousand times a-day: It knows her Voice; and tho it can't speak, it answers her by its Smiles and Gestures. In a word, the Love that a Child has for its Nurse is most tender; and wou'd the Mother take the trouble to suckle it, she might make it all her own.

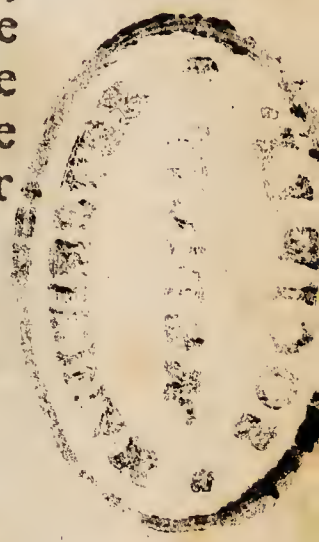
Did Mothers consider what Effect the Milk of a strange Woman has upon an Infant; did they believe that with the Milk of its Nurse it drinks in her vicious Inclinations, as daily Experience shews; they would be loth to suffer them to taste any other Milk but their own. Let Mothers therefore look to this, especially when they bring forth Girls, and not trust to the Characters given of Nurses, for they frequently do not answer them: And how sad a thing is it, if because the Nurse is a Drunkard, or a Whore, the Child shall prove such a *one* afterwards? The Mother must certainly be answerable to God Almighty for what happens in this Case.

We often see that when there are several Children, of the same Father and Mother, that some of 'em die young, others live to a great Age; the former are very tender and sickly, and the latter very healthful and vigorous: Which is owing very much, if not entirely, to the different Milks which they have suck'd. 'Tis also observable that there is often neither Love, nor a good Understanding amongst Brethren and Sisters; that they are of very different Tempers, because they have suck'd different Breasts: Whereas, had they been nurs'd by their Mother, the same Spirit and good Agreement would have prevail'd

and

and reign'd in the Family; which I have observ'd in *that* of a certain Officer, whose Mother had seven Children, whom she suckled, who enjoy very good Health, and live in the most perfect Friendship to this very day. Chap. 7.

I shall say no more on this Head, but only put Mothers in mind that some Nurses bring home Children mishapen and crooked, not having been careful enough of 'em, or having let them fall: Others having taken them into their own Beds, over-lay them. Others, again, don't scruple to bring home their own Child instead of the foster one. And therefore 'tis certainly both the Duty and Interest of Mothers to suckle their Children themselves.



## CHAP. VII.

### *The Qualifications of good Nurse.*

THO I have made it appear in the preceding Chapter that it is the Duty of Mothers to suckle their Children, yet this Rule is not so very general but that it admits of some Exceptions. And Women are sometimes in such Circumstances, that they neither ought to do it, nor are they capable of it, but must make choice of a good Nurse, from twenty two to thirty Years of Age; for a Woman's *then* in her full Strength and Vigour; and none younger or older are allow'd to suckle Princes. Her Milk ought to be between two and three Months old; for if it is younger, it may either not be depurated enough, or her Cleansings may not be quite over; and if it

it is older, she may probably not have enough of it to give the Child suck till it is time to wean it.

Most Ladies will not allow a Woman to suckle their Children, except she has been a Nurse before, and knows how to keep a Child, and has her Milk approv'd. A Woman who has suckled another's Child is to be preferr'd to *one* who has given suck to her own *only*, because her Milk not only suits her own, but another's. Women of a sanguine Complexion, whose Hair is black, or of a Chestnut-brown, make the best Nurses. Those who are of a bilious or melancholick *one*, and who are fair or red-hair'd, and who have Freckles in their Face, are not so good. A Nurse ought to be of a strong and robust Constitution, that she may be able to endure Watching, Labour, and Fatigue. She ought rather to be fat than lean, to have a good Appetite, and not to be too nice about eating and drinking: She must be good-humour'd, gay, and cheerful, and not want a merry Tale to make People laugh upon occasion: She must not be subject to any Distemper, nor have her Courses, nor the Whites. Her Breath must be good. She must have no bad Smell from her Feet or Armpits: She ought to have all her Teeth; and they ought to be sound. Her Skin ought to be white, neat, clear, and free from Scab and Itch. In a word, she ought to have all the Signs of good Health.

Some Ladies chuse Nurses that are handsome and beautiful, graceful in their Behaviour and Speech, well-shap'd, neither too tall nor too little, neither hunch-back'd nor crooked, and who have not the Tone and Dialect of a particular County, lest the Foster-Child should learn of 'em, and speak after their manner.

Her Breasts ought to be somewhat firm and plump, not adhering fast to the Breast-Bone,

 but

but strutting out in the Shape of a *Peer*; not flabby and hanging, but so large as to contain a sufficient Quantity of Milk. Chap. 7.

Her Nipple ought to be of the Figure of a Hazle-Nut, and no bigger. It ought to have several small Holes, out of which the Milk may easily flow, that the Child may not be put to too much trouble in sucking.

If a Woman's Milk is serous or watersh, it passes too quickly, and does not nourish the Child enough; if it is too thick, it is of difficult Digestion, and is binding; if it is sour, it gives the Child Gripes; if it is yellowish, it is a sign that the Nurse has too great a Stock of Bile; and if it is hot to the Taste, it causes the Child to break out in Pimples. It must be white, and sweet like Sugar, and of such a Consistence, that being milk'd into the Hand, it neither runs off immediately, nor with any *Difficulty* when we incline it to one side. Lastly, it's requir'd that it shou'd flow out of the Nipple in different Streams, as Water does out of a Watering-Pot, when we take the Child from the Breast after it has suck'd a little at any time.

Having thus described and enumerated the Qualifications of a good Nurse, there's only *one* more, which is the principal one, *viz.* That she be honest, discreet, and conscientious, and not too much given to Wine or Venery.

We have two Things more to consider: *1st*, Whether it is a Prejudice or Advantage to the Child that the Nurse has her *Courses*. *2dly*, Whether it is fit that a Woman should live with her Husband, or be separate from him, while she gives suck.

All the Ladies fancy that if a Nurse has her *Terms*, the Infant is depriv'd and robb'd of its Nourishment. But they may be assur'd that this

Book VI. does not always hold: For if a Nurse, who has her *Courses*, has *then* less Milk than ordinary, and if 'tis yellowish, sour, and wateriſh, I own that she must be chang'd; but if she has the same Quantity that she uses to have, there's no occasion for it, and the Evacuation is the pure Effect of a *Plethora*, or increas'd Quantity of good Blood, occasion'd frequently by the Nurse's having a better Diet in the Family, than she could afford to take to her self at home.

Ladies of the first Quality take care to have Nurses separated from their Husbands, and set Women over them, to watch them, that their Husbands may not have access to 'em, to get them with Child again, and spoil their Milk. This is very well done, if the Nurse is good-humour'd, and not too fond of her Husband, or given to Venery. But I do by no means approve of it, if she is of an amorous Complexion, and lascivious; for if her Passion once gets the better of her, and if she longs to see her Husband again, she's dissatisfy'd, peeviſh, sleeps little, loses her Appetite, and consequently has less Milk; and the *little* that she has turns serous and hot, and there's an absolute Necessity for changing her. I have known some, who were Nurses to Princes, so passionately and foolishly fond of their Husbands, that rather than not enjoy 'em, they have chosen to incur the Displeasure of those concern'd, who were both able and willing to have made comfortable and handsome Settlements upon 'em during Life, and who probably would have provided for their Children after them. Since therefore Matters stand frequently thus, I think 'tis advisable to allow Nurses of this Complexion to see their Husbands now and then; for 'twill make 'em easy, and perhaps dispose them to wait patiently till the Child is wean'd; and will have this

this good effect at least, that their Milk will be less sharp and hot than it frequently is. Add to all this, that many thousands of Mothers whose Husbands live with them constantly, suckle their own Children, and prove most excellent Nurses. Ch. 8.

## CHAP. VIII.

### *Of the Choice of a Nurse for Women in Childbed.*

THE little Skill that there is in nursing Women who *lie-in*, is best learnt by tending them *in that Condition*. There's no need to serve an Apprenticeship to it, for a little Practice does the business, and we see that those always make the best Nurses who have most Experience.

But tho this Employ be very easy, and tho a Nurse has nothing to do but to execute the Orders of the Surgeon or Midwife, yet there's some Thought and Discretion required in her, that she may discharge her Duty well. A young Woman must not undertake to nurse others, for she will have much ado to prevail with them to be free with her, or to put that Confidence in her which is necessary. A Childbed Nurse ought to be thirty Years of Age at least, that she may know the World a little. She must not be too old, because of the Labour and Fatigue of the Business, especially if any considerable Symptoms supervene, which require an extraordinary Attendance.

She ought to have an agreeable Aspect, and to be a Woman of Breeding, and of some Wit and

Conversation, who knows how to entertain the Woman that *lies in*, when she is alone, and to return the Compliments made to her by those who visit her; for she may be properly said to be her Mistress of Ceremonies. She must not be talkative, neither must she take notice of what is done in the Family, but more especially of what may vex the Woman she attends. She must give a faithful Account to the Man-Midwife or Physician, of what has pass'd and happen'd since they paid their last Visit, and must punctually execute their Orders, without taking upon her to do any thing of herself, lest the Woman in Childbed suffer by it, and fall a Sacrifice to her Ignorance, as too many do, to *that* of other officious, busy, and self-conceited Nurses.

She must neither give credit to a great many vulgar Errors about Women in *Labour* and Childbed, nor entertain her Mistress with any of 'em, lest she disorder or fright her. She must be temperate in eating and drinking, and must taste no Wine, lest it make her sleepy, and incapacitate her for doing that Service to her Mistress which is necessary, at stated hours. She ought to wait on the Woman whom she is to nurse, some days before her Reckoning is up, to see that the Linen proper both for her and the Child be got ready, and to prepare every thing that is necessary for her *Labour*; and when she's in *it*, ought to be at hand to give every thing that's call'd for.

'Tis her Business to wash and cleanse the Infant so soon as it comes into the World; and to swaddle it so, that no part of its Body be hurt or straitned: and she ought to take an extraordinary care of it, till it is put into the hands of its Nurse. And *then* she must tend her Mistress carefully day and night, and make use of no uncommon or considerable Medicines in the

Glisters which she gives her, or in the Decoc- Ch. 8.
tions with which she foments the *Parts*. Simple Remedies are certainly the safest and best; but should any strong one be necessary, she must by no means venture upon it without the Approbation of the Physician and Man-Midwife. She must not quack it with her Mistress, by giving her things to make her Breasts firmer, to take off the Wrinkles of her Belly, and to contract the *Parts* which are too much dilated in *Labour*. These are all Secrets and Tricks which some make use of to get Money: but there's nothing in them; and we must leave it to *Nature*, who is very capable of it, to do her own Work.

The chief Business of a Childbed Nurse, is to give the Woman every day a Glyster made with a Decoction of the *emollient Herbs*, *some Spoonfuls of the Oil of Sweet Almonds*, *and a little Honey*, if she has occasion for it; to foment the *Parts* twice a day with *a Decoction of Barley and Chervill*, to change her Closures as oft as they are foul'd, to take care that she is not too strait swath'd, to give her her Food at the hours appointed; not to urge her to eat, or suffer her to speak too much, or to rise before the 10th Day, or to receive Visits till she's in a fair way of Recovery: and in the last place, to take care that no body enters the Room who have any Perfumes about 'em.

If things are manag'd *thus*, the Woman cannot well fail of having a good time of it. And when she hath recover'd Strength, and is fit to go abroad, she must go to the House of God, attended by her Nurse, *there* to give Thanks, and get herself regularly Church'd. And the Nurse having afterwards received her Wages, will, I hope, take it to be her Duty to pray to Almighty

Almighty God, that she may have an opportunity to do her Mistress the same Service next Year.

I shall conclude with this one Remark, That religious and devout Ladies neither ought, nor will allow their Husbands to embrace them, till they have perform'd this Duty: but whereas by the Law of *Moses*, Women who had *lain-in* were not permitted to enter the Temple till 40 Days were expired, which were therefore call'd *the Days of Purification*; the Church being sensible that this is a very long and tedious Term for Man and Wife, when they cordially love one another, and that the Virtue of *both* may be sometimes in danger by so rigorous an Injunction, like a good and indulgent Mother, no longer requires the Observation of this Law, which was *a Yoke, which neither they nor their Fathers were able to bear*, but allows Women to be Church'd, and to return to Acts of conjugal and honourable Love, as soon as they find it convenient.

*FINIS.*

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